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TRINITY RIVER BRIDGES PROJECT

Environmental Assessment/Draft Environmental Impact Report

Volume 3

Chapter 3-(8-18), 4 thru 9

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TRINITY RIVER BRIDGES PROJECT

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Volume 3 of 4

Chapter 3-(8-18), 4 thru 9

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SECTION 3.8

Recreation

3.8 Recreation

This section addresses recreational issues related to construction and operation of the proposed Project, including the project conformance with the federal and state Wild and Scenic Rivers Acts (WSRAs). The following evaluation is based on review of local land use plans and policies specific to recreational uses, and field reconnaissance to identify potential recreational opportunities relative to the proposed project construction activities.

3.8.1 Affected Environment/Environmental Setting

Recreation opportunities refer to the availability of a particular type of recreation activity (e.g., the opportunity to canoe is directly dependent on suitable river flows). Recreational use is a measure of the actual user days for a particular recreational activity, and is often measured in recreational visitor days (RVDs). Recreation benefits measure the monetary value that recreationists would be willing to pay, over and above what they actually pay, to participate in recreation activities.

Regional Setting

There are three major lakes in Trinity County. These are Trinity Lake, Lewiston Lake, and Ruth Lake. The largest is Trinity Lake. It was formed with the completion of TRD of the CVP in 1961. When full, Trinity Lake has 145 miles of shoreline, is 16,400 acres in size, has a maximum depth of 465 feet, and is about 20 miles long. Lewiston Lake lies just downstream from Trinity Dam and just north of the town of Lewiston. Its level is relatively constant, covering 610 acres and has fifteen miles of wooded shoreline. Ruth Lake lies in the southern portion of Trinity County with approximately twenty-seven miles of shoreline and 1,100 acres of flat surface. Ruth Lake was formed with the completion of Ruth Dam in 1962 and serves as the water supply for the Humboldt Bay and the Eureka area. The Humboldt Bay Municipal Water District owns and operates the dam and hydroelectric plant while the Ruth Lake Community Services District manages much of the land bordering the lake.

Two designated wild and scenic rivers are located within the wilderness, the New River and North Fork Trinity River. Three other rivers have been recommended for wild and scenic river status, including Canyon and Virgin creeks and the upper 11.7 miles of the North Fork Trinity River. The Trinity River, from Lewiston Dam downstream to Weitchepec, is about 110 miles long and spans several management jurisdictions. These jurisdictions in turn influence the management of recreation resources within the Trinity River Basin. The federal government owns and manages about 72 percent of the land within Trinity County. Between Lewiston Dam and the confluence of the North Fork of the Trinity River, portions of the river are under the jurisdiction of the BLM. Between the confluence of the North Fork and the confluence with the New River, the Trinity River is managed by the USFS Shasta-Trinity National Forest. Between the New River and the Hoopa Valley Indian Reservation, the Trinity River is managed by the USFS Six Rivers National Forest. The Trinity River Basin also has several wilderness areas managed by the USFS, including the Trinity Wilderness Area, the Chanchelulla Wilderness Area, and the Trinity Alps Wilderness Area. As the river crosses the Hoopa Valley Indian Reservation it is managed by the HVT. Portions of the river that cross private land are within the jurisdiction of Trinity or Humboldt counties.

During the primary recreation season (Memorial Day to Labor Day, or approximately the last week of May to the end of the first week in September), water-dependent and water-enhanced Trinity River recreation includes boating, kayaking, canoeing, rafting, inner tubing, fishing, swimming, wading, camping, gold panning, nature study,

picnicking, hiking, and sightseeing. In addition, fishing for chinook salmon, steelhead, and rainbow and brown trout is a major recreational activity on the Trinity River throughout the remainder of the year.

Developed recreation areas along the Trinity River consist of private campgrounds, resorts, and lodges; public campgrounds and picnic areas; and fishing access sites. About 34 developed recreation sites are located within 0.5 mile of the Trinity River. More than 200 river access sites were inventoried in 1979 between Lewiston Dam and Weitchepec.

Local Setting

This reach is one of the most developed along the Trinity River, with many residential areas and subdivisions located between Lewiston Dam and Douglas City. Much of the private land in the region was subdivided in the early 1970s and the area has been developed with numerous residences since that time. Factors contributing to this growth have included the availability and subdivision of private land on relatively level flood plains now protected from flooding by the dams (to a certain extent), County zoning practices, abundant water from the river, and the attractive recreational/environmental setting.

Despite the presence of roads and development, access opportunities can be limited by private property and difficult terrain, or are not always easily identifiable. However, more than two miles of the river in the Steel Bridge-Poker Bar area flows through BLM land, and there are isolated BLM parcels adjacent to the Salt Flat and Bucktail subdivisions. Approximately one mile of the river, from the new Lewiston Bridge upstream to the dam, is within the designated Shasta-Trinity National Recreation Area.

Currently, there are 46 documented public access sites along the Trinity River within the project area, from Douglas City upstream to Lewiston Dam (RM 93 to 111.2). These access sites are suitable for a variety of recreational activities including boating, tubing, fishing, swimming, camping, picnicking, hiking, walking, and sightseeing. This is an average of over two public access sites per mile. Recreation opportunities outside the project area include facilities at the Lewiston Elementary School Playground, Lewiston Park, and Lewiston Community Center.

The BLM has two developed campgrounds within the general vicinity of the project. Steel Bridge Campground has eight campsites and is located at the end of Steel Bridge Road, approximately one mile upstream of the Biggers Road Bridge location. The Douglas City campground is immediately downstream of Reading Creek, about one mile from Douglas City. This site is accessed via Steiner Flat Road. In addition to these campgrounds, the BLM manages several day use river access areas. These include Rush Creek, Bucktail, and Steel Bridge sites. The Rush Creek River Access area is upstream of the Salt Flat Bridge and adjacent to Rush Creek Road.

The Rush Creek site is managed as a day-use recreational area, and offers a paved parking lot, restroom, trashcans and a primitive boat launch site for rafts, canoes, kayaks and other watercraft that can be carried to the river's edge. As a primary access point, it serves as a focal point for recreational fishing, year round. In summer, this reach receives heavier fishing use than any other stretch of the river. Cold waters released from Lewiston Dam help maintain salmon and steelhead trout habitat throughout the summer. Salmon fishing in large pools at various locations is also popular during the summer and fall.

The Bucktail site is a day-use recreational area that offers river access, parking, restrooms and undeveloped boat launching. The Bucktail site is popular for salmon fishing, and the Bucktail Hole is immediately downstream of the present Bucktail Bridge. This area is accessed via Browns Mountain Road, about five miles downstream from Lewiston, and offers facilities including a restroom, parking, and a footpath. There is also a popular undeveloped boat launch site immediately upstream of the Bucktail Bridge on BLM land. A small river access site is located adjacent to Steel Bridge Road, between the campground and the Biggers Road Bridge. This site offers an undeveloped boat launch and parking.

The California Wildlife Conservation Board (WCB) has acquired recreational access at the Old Lewiston Bridge site and at the mouth of Indian Creek for the CDFG. A cooperative development at Cemetery Hole was also developed through WCB and Trinity County, providing a recreation access site with parking lot, sign, and trail. There are six commercial campgrounds and one lodge along the river between Lewiston and Douglas City.

Immediately upstream of the mouth of Grass Valley Creek, the Hamilton Property has been acquired by the DWR, which developed a parking lot and trail system for day use. The Hamilton Ponds, located in Grass Valley Creek, include several popular swimming holes and beaches. Immediately upstream of the Hamilton Property on the Trinity River is the Lowden Ranch, which was acquired by the BLM, but has not been developed for recreational use. Those two properties include approximately one mile of public access to the river on the left river bank between the Bucktail and the Poker Bar Bridges sites.

Swimming in the Trinity River becomes more popular throughout the summer as water temperatures warm downstream. However, the State's water quality objective of 60 °F at the Douglas City Bridge from July 1 through September 15 inhibits extensive swimming activities. The river at both the Steel Bridge BLM Campground and the Douglas City BLM Campground areas receive water-contact use, but the water temperatures are generally too cold for more than a cooling dip in the water. However, they are the major public access sites in the lower part of the reach, offering pools and sandy beaches, accessed by public roads.

The BLM is responsible for submitting recreation visitor use data yearly to the BLM's Washington Office. Visitation data for the Trinity River Special Recreation Management Area is gleaned from reported use data collected from the BLM campground use receipts, special recreation permits, and from USFS visitation records. Based on BLM information, an estimated 67,000 RVDs were spent on the Trinity River in 2002. The most popular recreation activities on the Trinity River are boating, swimming, hiking, and fishing. Based on recent estimates of recreational use of the Trinity River and Trinity Reservoir, it is estimated that approximately $13 million is spent by recreational users in Trinity County, with non-County residents accounting for about 75 percent.

Salt Flat Bridge

Salt Flat is considered a potential future access point in the "Trinity River Access Plan" (County 1986). Development of future access points is dependent upon the ability of the responsible governmental agency to provide necessary improvements. A future access trail that could progress upstream from Salt Flat on the southern side of the Trinity River is also included in the Access Plan. Recreation opportunities outside the project area include facilities at the Lewiston Elementary School Playground, Lewiston Park, and Lewiston Community Center. Existing recreational uses include water contact recreation, fishing, and wildlife watching. **Figure 3.8-1** depicts recreation areas within five miles of the Project ESL.

Bucktail Bridge

Bucktail is considered a major access point in the "Trinity River Access Plan" (County 1986). Major access points are high usage areas where ample off-street parking is to be provided as well as sanitary and garbage collection facilities. Two future access trails are delineated near Bucktail Bridge; the trail on the southern bank of the river is intersected by the bridge, and the trail on the north side of the river begins downstream of the bridge. An existing trail that begins downstream of Bucktail Bridge has a trailhead off of Wellock Road. This trail continues upstream and goes around Hamilton Ponds. The Lewiston Trail Committee is working with the BLM to make this a "recognized" trail (T. Stokely, personal communication, 2003). Existing recreational uses within and adjacent to the Bucktail Bridge site include fishing, boating, and wildlife watching. Bucktail Hole, immediately downstream from the bridge, is an important fishing access point. The Trinity River Fly Shop, located approximately two miles west of Bucktail Bridge on Lewiston Road, provides bait, tackle, and guide services in the Bucktail area. **Figure 3.8-1** depicts recreation areas within five miles of the Project ESL.

Poker Bar Bridges

A day use area is located approximately one mile downstream of the Poker Bar Bridges site. Day use areas are lesser-used access points where off-street parking is limited and where the anticipated level of usage warrants a lower level of services. No existing recreational uses are identified at this site. **Figure 3.8-1** depicts recreation areas within five miles of the Project ESL.

Biggers Road Bridge

A short proposed access trail on the east side of the Trinity River at the Biggers Road Bridge site was identified in the Douglas City Community Plan (County 1987). Day use areas and longer access trails exist about one half-mile up- and downstream of the project site. The Access Plan defines access trails as footpaths lying immediately adjacent to the river. One campground (Steel Bridge Campground), and one day use area are maintained by the BLM upstream of this site. Existing recreational uses within and adjacent to this site include fishing and wildlife watching. **Figure 3.8-1** depicts recreation areas within five miles of the Project ESL.

3.8.2 Relevant Plans and Policies

Federal

Wild and Scenic Rivers Act

Congress enacted the National WSRA in 1968, in an effort to protect free-flowing rivers with "outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values." The entire mainstem of the Trinity River was designated a National Wild and Scenic River by the Secretary of Interior in 1981, primarily because of the river's anadromous fishery. In addition, the reach of the river downstream from Lewiston Dam was classified as having distinctive scenic quality and high peak flow viewer sensitivity (i.e., at peak flows the scenic qualities of the river are enhanced). Approximately 97.5 miles of the river are also classified as recreational under the National WSRA.

The USFS Shasta-Trinity National Forest (STNF) classifies the Trinity River from the North Fork downstream to Cedar Flat as recreational, and from Cedar Flat downstream to the river's confluence with New River as scenic. The USFS management goals are to

- protect the scenic and recreational portions of the Trinity River in a free-flowing condition;
- manage the river and its immediate environment;
- protect and enhance the value (its anadromous fishery) for which the river was originally designated as a National Wild and Scenic River; and
- maintain the river environment in a natural state for anadromous fisheries while providing for recreation opportunities that do not adversely affect the values for which the river segments were nominated.

Trinity County regulates the Trinity River Wild and Scenic River corridor with three zoning districts: an Open Space District, a Scenic Conservation Overlay Zone, and a Flood Hazard Zoning District. These districts cite specific development standards and establish permitted uses within the river corridor.

In addition, the Trinity River has several designations in the Trinity County General Plan, including Intensive Recreation Area, Intensive Recreation Reservoir Site, and Urban Recreation Area. Trinity County's objective is to reserve land for recreational facilities and encourage private recreational development and other open-space uses that are characteristic and beneficial to the local residents while meeting current and future needs.

The federal WSRA designates qualifying free-flowing river segments as wild, scenic, or recreational. The WSRA establishes requirements applicable to water resource projects affecting wild, scenic, or recreational rivers within the National Wild and Scenic Rivers System, as well as rivers designated on the National Rivers Inventory. Under the WSRA, a federal agency may not assist the construction of a water resources project that would have a direct and adverse effect on the free-flowing, scenic, and natural values of a wild or scenic river. If the project would affect the free-flowing characteristics of a designated river or unreasonably diminish the scenic, recreational, and fish and wildlife values present in the area, such activities should be under-taken in a manner that would minimize adverse impacts, and should be developed in consultation with the administering agency. **Appendix G** was prepared to specifically address Section 7 consultation requirements under the federal WSRA. The Trinity River was designated a Wild and Scenic River due in part to its "outstandingly remarkable resource," the fishery (P.L. 90-542).

State

Wild and Scenic Rivers Act

Under the California WSRA, the segment of the Trinity River associated with the proposed Project is designated as "scenic" and "recreational." This classification was designated in 1980, a year prior to the federal designation. The *Public Resources Code* (5093.53[b]) defines "scenic rivers" as being "those rivers or segments of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads." "Recreational rivers" are defined in the *Public Resources Code* (5093.53[c]) as being "those rivers or segments of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment of division in the past. There are no permits required specifically under the state WSRA. However, CDFG 1601/1603 Streambed Alteration Agreements on Wild and Scenic Rivers are reviewed by the Resources Agency for consistency with the state WSRA, and additional conditions may be placed on the Agreement for consistency with the WSRA. While there are no separate reporting requirements to address wild and scenic rivers, the environmental document shall discuss the issue, summarize coordination among participating agencies, evaluate impacts to qualities that support the river's designation, and propose suitable mitigation measures as warranted. These may include the Clean Water Act

Section 404 Permit, 401 Certification, NPDES Permit, Fish and Game Code Section 1601 Streambed Alteration Agreement, or ESA Section 7 Consultation for endangered species that would be affected.

Local

Trinity County General Plan Goals and Objectives

The Trinity County General Plan contains goals and policies designed to guide the future physical development of the County, based on current conditions. The General Plan contains all the state-required elements, including community development and design, transportation, natural resources, health and safety, noise, housing, recreation, economic development, public facilities and services, and air quality. The following goals and policies, relative to recreation issues associated with the project study area, were taken from the applicable elements of the General Plan (County 2001). This includes the Lewiston Community Plan (County 1986) and the Douglas City Plan (County 1987).

County Wide Goals and Objectives

General Plan Goals

1. To retain the mountain beauty, the vast wilderness areas and the open character of Trinity County.
2. To provide additional facilities for camping, picnicking, boating, and sightseeing, both public and private.
3. To encourage recreation as the primary resource of the County.

Land Use Element Goals

Cultural

To retain the rural character of Trinity County:

- By encouraging uses that fit with the land.
- By considering the "rights" of the individual when making decisions as well as the "rights" of the community.
- By seeking information and cooperation from state and federal agencies within Trinity County.

Economic

To maintain and enhance a viable economic base for Trinity County:

- By encouraging tourism

Lewiston Community Plan Goals and Objectives

This plan includes the area centered on the Trinity River from Lewiston Lake to slightly downstream of the confluence of Grass Valley Creek and the Trinity River. Project sites within the planning area include Salt Flat and Bucktail.

Economic Development

Goal: To encourage recreation development as a viable sector of the economy.

- Develop existing publicly owned access areas to the river to meet the needs of visitors to the area.

Environmental Study Limit (ESL)

5mi Area around ESL

Recreation or Access Area

N

0 4,000 8,000

Feet

F:\Projects\10006 - Environmental Survey at Four Bridge Replacement Sites\GIS\10006_Recreation_Access.mxb Source: NSR, Inc.; Trinity County; USGS 1-17-03 tkoehler

Salt Flat

Bucktail

Poker Bar

Biggers Road

Lewiston Dam
Hatchery Parking Area
Right Bank at Hatchery
Hatchery Ponds
Hatchery Ponds
Gravel Bar (left bank 3/4
Fish Weir Site
New Lewiston Br. (Rt. Ban
New Lewiston Br. (Left Ba
River Oaks Resort-Trailer
Old Lewiston Bridge (Rt.
USGS Cable Crossing
Old Lewiston Mill
Old Lewiston Bridge (Rt.
Trinity Dam Trailer Park
Old Lewiston Bridge (Left
Cemetery Hill
Old Lewiston Bridge Trail
Pullouts
Hog Hole
Trinity River Lodge
Drishall Access
Upper Bucktail Pool
Upper Bucktail Pool
Bucktail Boat Launch
Bucktail Pool
Bucktail Pool (Bridge)
Bucktail Pool
Southern Pacific Pool
Limekiln Gulch
End of Poker Bar Road
Union Hill Mine Road
Poker Bar Road
Camp
Steel Bridge Campground
Steel Bridge Pool, Left Bank
Steel Bridge Pool, Right
Pullout
Mouth of Indian Creek
Indian Creek Lodge
Indian Creek Trailer Pk
Pullout
Pullout
Dredger Area
Section 2
Pullouts
Douglas City Bridge
Douglas City Campground
Douglas City Campground
Douglas City Campground
Douglas City Campground
Reading Bar
Reading Bar
Mouth of Reading Creek

Trinity River Bridges Project

North State Resources, Inc.

Figure 3.8-1
Recreation & Access Areas

Parks and Recreation

Goal: To provide for access to the Trinity River in a manner that recognizes and respects the rights of existing development.

- Develop a River Access Plan that relies predominantly upon public lands for access to and along the Trinity River.
- Insure that the proper level of services is provided at river access points.

Douglas City Community Plan

This plan includes the area centered on the Trinity River from Grass Valley Creek to slightly downstream of Steiner Flat. Project sites within the planning area include Poker Bar and Biggers Road bridge sites.

Parks and Recreation

Goal: To provide for access to the Trinity River in a manner that recognizes and respects the rights of existing developments.

The objectives consistent with this goal are:

- Develop a River Access Plan which relies predominantly upon public lands for access to and along the Trinity River
- Insure that future access areas or sites are designed and located so as to avoid potential conflicts with private development.

Goal: To insure that recreational use of the Trinity River does not result in degradation of this valuable resource.

Objectives incorporated into the Plan consistent with this goal are:

- Utilize the BLMs quarter mile corridor boundary on the Trinity River to review projects for their potential impact on recreational use of the Trinity River.

Trinity County Subdivision Ordinance

The Trinity County Subdivision Ordinance Section 16.08.130, identifies the Trinity River below Lewiston Dam as a "Public Waterway." This ordinance requires "Reasonable Public Access" for subdivisions on public waterways if no existing reasonable public access exists, as determined by the Planning Commission or Board of Supervisors. Reasonable public access includes access to or along a river, stream, or reservoir by highway, foot trail, bike trail, horse trail, or other means. In determining what constitutes "reasonable public access", many factors are considered, including the type of riverbank, the various appropriate recreational, educational, and scientific uses possible there, the likelihood of trespass on private property and reasonable means of avoiding such trespass, public safety, and other such information.

The requirement to consider reasonable public access on a public waterway pursuant to the Trinity County Subdivision Ordinance and the California Subdivision Map Acts is not required for this project. However, the concept of "reasonable public access" is being considered because there are several viewpoints regarding whether the Salt Flat Bridge should remain private or become a public bridge and roadway.

Project Consistency with the Trinity County General Plan and Community Plans

As described in Chapter 1, Introduction, the proposed Project would:

- Provide safe and reasonable year-round access to parcels of land served by the Salt Flat, Bucktail, Poker Bar and Biggers Road bridges across the Trinity River.
- Allow dam operators maximum flexibility to provide instream flow releases from Lewiston Dam adequate to meet the fishery and geomorphic flow needs for the mainstem Trinity River and to fulfill the Trinity River TMDL for sediment and restore the coldwater fishery beneficial use.

The following project objectives apply to the project's lead/responsible agencies for the CEQA purposes:

- Minimize the threat to public safety and potential damage to property posed by the existing high likelihood of flooding
- Provide maximum flexibility for implementing a variety of potential Trinity River fishery flow alternatives, as well as other flow alternatives outside the ROD such as increasing dam releases during periods of high downstream tributary inflows
- Allow for high-efficiency sediment transport in the Trinity River to maximize the amount of sediment transported on a per acre-foot basis so that Trinity River can be removed from California's Clean Water Act Section 303(d) Impaired Waterbodies List, while minimizing the total amount of water necessary to transport sediment through the river system
- Provide maximum flexibility for operations of the Trinity River Division during periods of high runoff and flooding which could result in increased water in storage available for multiple beneficial uses (i.e., fisheries, recreation, water supply, water quality and power production)
- Provide alternative access on a short-term basis during project implementation
- Recovery of fish and wildlife resources that are listed as threatened and endangered

The following objectives apply to the projects responsible and trustee agencies, including the HVT, NCRWQCB, SLC, CDFG, and the SWRCB:

- Comply with the Water Code to ensure the highest reasonable quality of waters of the state and allocate those waters to achieve the optimum balance of beneficial uses
- Protect the public trust assets of the Trinity River watershed
- Protect, conserve, restore, and manage fish, wildlife, and native plant resources
- Comply with the Water Quality Control Plan for the Hoopa Valley Indian Reservation to preserve and enhance water quality on the Reservation, and to protect the beneficial uses of water.

These project objectives are consistent with the applicable general plan goals and policies summarized above.

3.8.3 Environmental Consequences/Impacts and Mitigation Measures

Methodology

The analysis consists of identifying recreational resources (parks and recreation facilities) in or near the project area, and determining whether the construction, operation, and/or maintenance of the proposed Project would have any

effect on these resources. This analysis is a qualitative assessment of the effects of the proposed Project on potential recreational uses in the project vicinity.

In addition to evaluating the effects on recreation opportunities and use and benefits, the proposed Project was evaluated for consistency with Trinity County recreation objectives and both State and Federal Wild and Scenic River designations. The WSRA Section 7 Determination for the proposed Project is included as **Appendix G**.

Significance Criteria

Impacts associated with recreational uses are considered significant if the project would

- conflict with established or planned recreational uses within the project area;
- substantially affect existing recreational opportunities; and
- result in an increase in the use of the existing neighborhood, regional parks, public lands in general, or other recreational facilities such that substantial deterioration of these facilities would occur or be accelerated.

The following criteria were also used to determine significant impacts to riverine recreation:

- Substantial increase in turbidity so as to negatively impact recreation aesthetics
- Incompatibility with the Federal or State Wild and Scenic River designation, defined as jeopardizing the river's anadromous fishery resources or scenic and recreational qualities
- Non-compliance with Trinity County recreation resource objectives

Impacts and Mitigation Measures

Table 3.8-1 summarizes the potential recreation impacts resulting from construction and operation of the proposed Project.

TABLE 3.8-1
SUMMARY OF RECREATION IMPACTS FROM THE PROPOSED TRINITY RIVER BRIDGES PROJECT

Impact	Project Site	No-Action Alternative	Proposed Action	Alternative 1	Alternative 2
1. Construction associated with the proposed Trinity River Bridges Project could disrupt recreation activities within the Trinity River.	Salt Flat	NI	LS	LS	LS
	Bucktail	NI	LS	LS	N/A
	Poker Bar	NI	LS	LS	N/A
	Biggers Road	NI	LS	LS	N/A
2. Construction and operation of the proposed Trinity River Bridges Project could result in an increased safety risk to recreational users.	Salt Flat	NI	S	S	S
	Bucktail	NI	S	S	N/A
	Poker Bar	NI	S	S	N/A
	Biggers Road	NI	S	S	N/A
3. Construction associated with	Salt Flat	NI	S	S	S

TABLE 3.8-1
SUMMARY OF RECREATION IMPACTS FROM THE PROPOSED TRINITY RIVER BRIDGES PROJECT

Impact	Project Site	No-Action Alternative	Proposed Action	Alternative 1	Alternative 2
the proposed Trinity River Bridges Project could lower the river recreation aesthetic value by increasing turbidity levels in the Trinity River.	Bucktail	NI	S	S	N/A
	Poker Bar	NI	S	S	N/A
	Biggers Road	NI	S	S	N/A
4. Implementation of the project Trinity River Bridges Project could reduce or eliminate public access to the Trinity River.	Salt Flat	NI	LS	LS	LS
	Bucktail	NI	LS	LS	N/A
	Poker Bar	NI	LS	LS	N/A
	Biggers Road	NI	LS	LS	N/A
5. Construction and implementation of the Trinity River Bridges Project could impact Wild and Scenic River Values.	Salt Flat	NI	LS	LS	LS
	Bucktail	NI	LS	LS	N/A
	Poker Bar	NI	LS	LS	N/A
	Biggers Road	NI	LS	LS	N/A

Notes:

LS = Less than Significant S = Significant N I= No Impact SU = Significant Unavoidable
N/A = Not Applicable

Salt Flat

Impact 3.8-1: Construction activities associated with the proposed Trinity River Bridges Project could disrupt boating, fishing, and swimming activities within the Trinity River. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, no construction-related disruption of boating, fishing, and swimming activities within the Trinity River would occur, because a new bridge would not be constructed at the Salt Flat site.

Proposed Action (Replacement Downstream, Private Ownership)

As previously discussed, the Trinity River within the Project ESL supports in-stream recreational uses – primarily boating and fishing. These in-stream recreation activities occur throughout the year, but are more prevalent between the months of April through December. Undeveloped access points and trails to the Trinity River are present within the Project ESL and are used primarily by local recreational users including anglers, swimmers, boaters, and nature viewers.

During implementation of the Proposed Action there will be construction equipment and activity in and near the Trinity River. Proposed staging areas, temporary working platforms, gravel access berms, and construction equipment pathways may result in reduced access to the Trinity River for anglers and other recreational users using informal access points and trails within the Project ESL. This impact is considered less than significant because any potential disruptions to recreation activities at the Salt Flat site will be temporary in nature. In addition, construction of the new bridge at Salt Flat would not preclude the development of future public river access as described in the "Trinity River Access Plan" (County 1986).

Alternative 1 (Replacement Upstream, Private Ownership)

Construction-related disruption of recreation activities within the Trinity River associated with Alternative 1 is similar to the Proposed Action.

Alternative 2 (Replacement Upstream, Public Ownership)

Construction-related disruption of recreation activities within the Trinity River associated with Alternative 2 is similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1; Alternative 2

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Impact 3.8-2: Construction and operation of the proposed Trinity River Bridges Project could result in an increased safety risk to recreational users. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, construction-related safety risks to recreational users would not occur because a new bridge would not be constructed at the Salt Flat site; however, the potential benefits to long-term recreational safety associated with a new two-span structure (i.e., two less piers in river channel, increased elevation of bridge deck) would not be realized. At flows of approximately 4,000 cfs, the Salt Flat Bridge creates an obstruction to recreational boating, including low head clearance (B. Gutermuth, TRRP, personal communication, 2003).

Proposed Action (Replacement Downstream, Private Ownership)

During construction of the Proposed Action, there will be heavy equipment activity and construction vehicle traffic within and directly adjacent to the Trinity River. Removal of the existing in-river piers following construction of the new bridge would require the placement of gravel access pads around each pier. Each gravel access pad would be in the river channel for no more than one week. These construction-related activities could distract and /or result in potential harm to recreational users (i.e., boaters, anglers, swimmers) within the Project ESL. This impact would be significant, albeit temporary, and would occur during the construction period.

Alternative 1 (Replacement Upstream, Private Ownership)

Potential safety risks to recreational uses from construction and operation of Alternative 1 are similar to the Proposed Action.

Alternative 2 (Replacement Upstream, Public Ownership)

Potential safety risks to recreational uses from construction and operation of Alternative 2 are similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1; Alternative 2

SF-2a: The BOR shall provide precautionary signage to warn recreational users of the potential safety hazards associated with project construction activities. Signs and/or buoys shall be placed within and directly adjacent to the Project ESL along the Trinity River in accordance with the requirements specified in Title 14, Article 6 of the California Code of Regulations. Additionally, public notification of proposed project construction activities and associated safety hazards should be circulated in the local newspaper at least two weeks prior to the start of construction activities.

Significance after Mitigation: *Less than Significant.*

Impact 3.8-3: Construction activities associated with the proposed Trinity River Bridges Project could lower the river reaction aesthetic value by increasing turbidity levels in the Trinity River. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, turbidity levels in the Trinity River would not increase because a new bridge would not be constructed at the Salt Flat site.

Proposed Action (Replacement Downstream, Private Ownership)

Constructing the new bridge at the Salt Flat site could increase turbidity in the Trinity River, leading to significant aesthetic impacts to recreationists participating in activities in proximity to the resultant turbid plume. Water quality objectives for the Trinity River specifically prohibit the alteration of suspended sediments and other materials in a way that causes nuisance or adversely affects beneficial uses (i.e., recreation). In addition to water quality objectives, the Basin Plan includes two prohibitions specific to construction, logging, and other associated nonpoint source activities:

- The discharge of soil, silt, bark, sawdust or other organic and earthen material from any logging, construction or associated activity of whatever nature into any stream or watercourse in the basin in quantities deleterious to fish, wildlife or other beneficial uses is prohibited.
- The placing or disposal of soil, silt, bark, slash or sawdust or other organic and earthen material from any logging construction or associated activity of whatever nature at locations where such material could pass into any stream or watercourse in the basin in quantities deleterious to fish, wildlife or other beneficial uses is prohibited.

Implementing the Proposed Action would increase turbidity and total suspended solids during construction in the river. During in-river construction activities, potential increases in turbidity levels would likely be greatest during placement of the temporary gravel working platforms, during drilling activities for pier placement, and during construction of bridge abutments. Fine sediments may be suspended in the river for several hours following placement of the clean gravel work pads and drilling activities. The extent of downstream sedimentation would be a function of the instream flow velocity and particle size. For example, fine-grained sediments like silts and clays can be carried several thousand feet downstream of the bridge pier construction limits, while larger-sized sediments like sands and gravels would tend to drop out of the water column within several feet of the construction limit. Increased turbidity and suspended solids levels would adversely affect water quality (refer to Section 3.5, Water Quality) and could also adversely affect anadromous fish species that are known to occur in the Trinity River (refer to Section 3.6, Fisheries Resources).

Alternative 1 (Replacement Upstream, Private Ownership)

Potential increases in turbidity levels in the Trinity River associated with construction of Alternative 1 would be similar to the Proposed Action.

Alternative 2 (Replacement Upstream, Public Ownership)

Potential increases in turbidity levels in the Trinity River associated with construction of Alternative 2 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1; Alternative 2

Implement Mitigation Measures (Proposed Action, Alternative 1, Alternative 2) **SF-1a-1d**from Section 3.5, Water Quality.

Significance after Mitigation: *Less than Significant.*

Impact 3.8-4: Construction activities associated with the proposed Trinity River Bridges Project could reduce or eliminate public access to the Trinity River. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, public access to the Trinity River would not be reduced or eliminated because a new bridge would not be constructed at the Salt Flat site.

Proposed Action (Replacement Downstream, Private Ownership)

Undeveloped access points and trails to the Trinity River are present within the Salt Flat ESL. These access points and informal trails are used by a variety of local recreationists including anglers, swimmers, boaters, and nature viewers. During construction of the Proposed Action, staging areas, a temporary gravel working platform, and

construction equipment pathways may temporarily reduce access to the Trinity River for anglers and other recreational users using informal access points and trails within the Project ESL. Since construction will occur in stages, temporary disruption of access would be limited to either the west bank or the east bank of the river. This short-term disruption of informal access points and trails is not anticipated to be significant since access to the river will be available along at least one bank throughout construction and the relative abundance of other river access points upstream and downstream of the Salt Flat site.

Alternative 1 (Replacement Upstream, Private Ownership)

Temporary reductions in public access to the Trinity River associated with construction of Alternative 1 would be similar to the Proposed Action. Construction and implementation of Alternative 1 would not eliminate any public access points.

Alternative 2 (Replacement Upstream, Public Ownership)

Temporary reductions in public access to the Trinity River associated with construction of Alternative 2 would be similar to the Proposed Action. Construction and implementation of Alternative 2 would not eliminate any public access points.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1; Alternative 2

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Impact 3.8-5: Construction and implementation of the proposed Trinity River Bridges Project could impact Wild and Scenic River values. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, no adverse impacts to Wild and Scenic River values would occur because a new bridge would not be constructed at the Salt Flat site.

Proposed Action (Replacement Downstream, Private Ownership)

Construction and implementation of the Proposed Action would not permanently impact the scenic or recreational value of the Trinity River. The proposed bridge replacement is not considered to be a significant scenic impact because a bridge already exists at the Salt Flat site. No permanent impacts to recreation will occur as a result of the Proposed Action. Temporary impacts to recreation are discussed under Impacts 3.8-1, 3.8-2, and 3.8-4 in this section; temporary impacts to the scenic quality of the river are discussed under Impact 3.8-3 of this section and in Section 3.14, Aesthetics.

Alternative 1 (Replacement Upstream, Private Ownership)

Impacts to Wild and Scenic River values associated with construction of Alternative 1 would be similar to the Proposed Action.

Alternative 2 (Replacement Upstream, Public Ownership)

Impacts to Wild and Scenic River values associated with construction of Alternative 2 would be similar to the Proposed Action except that additional public access would be allowed for recreational activities.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1; Alternative 2

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Bucktail Bridge

Impact 3.8-1: Construction activities associated with the proposed Trinity River Bridges Project could disrupt boating, fishing, and swimming activities within the Trinity River. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no construction-related disruption of boating, fishing, and swimming activities within the Trinity River would occur, because the west approach roadway and the existing culvert would not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

The Bucktail site offers numerous opportunities for recreating in and around the Trinity River, including a day-use recreational area that offers river access, parking, restrooms and undeveloped boat launching, and a popular fishing access point (Bucktail Hole). Instream recreation activities occur throughout the year, but are more prevalent between the months of April through December. Bucktail is considered a major access point in the Trinity River Access Plan (County 1986). Major access points are high usage areas where ample off-street parking and sanitary and garbage collection facilities are anticipated to be offered in the future. Implementation of the Proposed Action would not preclude the development of future public river access or associated facilities.

During construction of the Proposed Action there will be construction equipment and activity in and near the Trinity River at the Bucktail site. Construction activities associated with the raised roadway and installation of the new arch culvert, including staging on BLM lands to the east, may result in reduced access to the Trinity River for anglers and other recreational users using informal access points and trails within the Project ESL. This impact is considered less than significant because any potential disruptions to recreation activities at the Bucktail site will be temporary in nature. Short-term impacts to public parking at the Bucktail site are evaluated in Section 3.18, Transportation/Traffic Circulation.

Alternative 1 (Raise Existing Upstream Levee)

During construction of Alternative 1, staging on BLM land to the northeast would limit public access to the river. However, because activities would be limited to the area north of Browns Mountain Road and the existing Bucktail Bridge, access to popular fishing points (i.e., Bucktail Hole) would not be impacted. Temporary disruption of

boating, fishing, and swimming activities due to construction of Alternative 1 is considered less than significant because any potential disruptions to recreation activities at the Bucktail site will be temporary in nature.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Impact 3.8-2: Construction and operation of the proposed Trinity River Bridges Project could result in an increased safety risk to recreational users. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, safety risks to recreational users would not increase because the west approach roadway and the existing culvert would not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

During construction of the Proposed Action, there will be heavy equipment activity and construction vehicle traffic within and directly adjacent to the Trinity River. These construction-related activities could distract and /or result in potential harm to recreational users, primarily anglers since no in-river construction is proposed at the Bucktail site. This impact would be significant, albeit temporary, and would occur during the construction period.

Alternative 1 (Raise Existing Upstream Levee)

Potential safety risks to recreational uses from construction and operation of Alternative 1 are similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1

BT-2a: The BOR shall provide precautionary signage to warn recreational users of the potential safety hazards associated with project construction activities. Signs and/or buoys shall be placed within and directly adjacent to the Project ESL along the Trinity River in accordance with the requirements specified in Title 14, Article 6 of the California Code of Regulations. Additionally, public notification of proposed project construction activities and associated safety hazards should be circulated in the local newspaper at least two weeks prior to the start of construction activities.

Significance after Mitigation: *Less than Significant.*

Impact 3.8-3: Construction activities associated with the proposed Trinity River Bridges Project could lower the river reaction aesthetic value by increasing turbidity levels in the Trinity River. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, turbidity levels in the Trinity River would not increase because the west approach roadway and the existing culvert would not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

Constructing the raised approach roadway and new arch culver at the Bucktail site could increase turbidity in the Trinity River, leading to significant aesthetic impacts to recreationists participating in activities in proximity to the resultant turbid plume. Water quality objectives for the Trinity River specifically prohibit the alteration of suspended sediments and other materials in a way that causes nuisance or adversely affects beneficial uses (i.e., recreation). In addition to water quality objectives, the Basin Plan includes two prohibitions specific to construction, logging, and other associated non-point source activities:

- The discharge of soil, silt, bark, sawdust or other organic and earthen material from any logging, construction or associated activity of whatever nature into any stream or watercourse in the basin in quantities deleterious to fish, wildlife or other beneficial uses is prohibited.
- The placing or disposal of soil, silt, bark, slash or sawdust or other organic and earthen material from any logging construction or associated activity of whatever nature at locations where such material could pass into any stream or watercourse in the basin in quantities deleterious to fish, wildlife or other beneficial uses is prohibited.

The Proposed Action does not require any work within the active low-flow channel of the Trinity River; however, construction associated with replacing the existing culvert and raising the approach roadways could increase turbidity and total suspended solids. Fine sediments may be suspended in the river for several hours following construction activities. The extent of downstream sedimentation would be a function of the instream flow velocity and particle size. For example, fine-grained sediments like silts and clays can be carried several thousand feet downstream of the bridge pier construction limits, while larger-sized sediments like sands and gravels would tend to drop out of the water column within several feet of the construction limit. Increased turbidity and suspended solids levels would adversely affect water quality (refer to Section 3.5, Water Quality) and could also adversely affect anadromous fish species that are known to occur in the Trinity River (refer to Section 3.6, Fisheries Resources).

Alternative 1 (Raise Existing Upstream Levee)

Under Alternative 1, placement of rip-rap on the river side of the levee will take place within the active low-flow channel. Potential increases in turbidity levels in the Trinity River associated with construction of Alternative 1 would be similar to or perhaps greater than the Proposed Action due to the instream construction activities associated with this alternative.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1

Implement Mitigation Measures (Proposed Action, Alternative 1, Alternative 2) **BT-1a-1d** from Section 3.5, Water Quality.

Significance after Mitigation: *Less than Significant.*

Impact 3.8-4: Construction activities associated with the proposed Trinity River Bridges Project could reduce or eliminate public access to the Trinity River. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, public access to the Trinity River would not be reduced or eliminated because the west approach roadway and the existing culvert would not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

Designated parking is available northeast and southeast of the existing Bucktail bridge, public access points are located northeast and southwest of the bridge, and sanitary facilities are available northwest of the bridge. Construction activities associated with the raised roadway and installation of the new arch culvert, including staging on BLM lands to the east, could temporarily limit parking and access to the river for recreational activities. This short-term disruption is not anticipated to be significant since public and open space lands along the Trinity River will continue to be accessible and available for public use (i.e., passive recreation) and the relative abundance of other river access points at the Bucktail site. Increasing the elevation of the western road approach would result in the loss of unimproved parking used by the public to access the river; however, alternative parking will be provided on BLM lands located north of Browns Mountain Road and east of the Bucktail bridge upon project completion.

Alternative 1 (Raise Existing Upstream Levee)

Staging on BLM land to the northeast would limit public access to the river. This short-term disruption is not anticipated to be significant since public and open space lands along the Trinity River will continue to be accessible and available for public use (i.e., passive recreation) and the relative abundance of other river access points at the Bucktail site. Short-term parking disruptions are not anticipated since there are no roadway or culvert improvements associated with Alternative 1. Construction and implementation of Alternative 1 would not eliminate any public access points.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Impact 3.8-5: Construction and implementation of the proposed Trinity River Bridges Project could impact Wild and Scenic River values. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no adverse impacts to Wild and Scenic River values would occur because the west approach roadway and the existing culvert would not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

Construction and implementation of the Proposed Action would not permanently impact the scenic or recreational value of the Trinity River. Raising the Browns Mountain roadway and replacing the culvert are not considered significant scenic impacts because a roadway and culvert already exist at the Bucktail site. No permanent impacts to recreation will occur as a result of the Proposed Action. Temporary impacts to recreation are discussed under Impacts 3.8-1, 3.8-2, and 3.8-4 in this section; temporary impacts to the scenic quality of the river are discussed under Impact 3.8-3 of this section and in Section 3.14, Aesthetics.

Alternative 1 (Raise Existing Upstream Levee)

Construction and implementation of Alternative 1 would not permanently impact the scenic or recreational value of the Trinity River. Raising the levee is not considered a significant scenic impact because a levee already exists at the Bucktail site. No permanent impacts to recreation will occur as a result of Alternative 1. Temporary impacts to recreation are discussed under Impacts 3.8-1, 3.8-2, and 3.8-4 in this section; temporary impacts to the scenic quality of the river are discussed under Impact 3.8-3 of this section and in Section 3.14, Aesthetics.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Poker Bar Bridges

Impact 3.8-1: Construction activities associated with the proposed Trinity River Bridges Project could disrupt boating, fishing, and swimming activities within the Trinity River. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no construction-related disruption of boating, fishing, and swimming activities within the Trinity River would occur, because the new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

The Poker Bar site is not used extensively for recreational purposes, although a day use area is located approximately one mile downstream and the existing bridges provide access to several large areas of publicly managed lands (BLM).

During construction of the Proposed Action there will be construction equipment and activity in and near the Trinity River at the Poker Bar site, which could limit access to the Trinity River for anglers and other recreational users using informal access points within the Project ESL. This impact is considered less than significant because no existing

recreational uses have been identified at this site and because any potential disruptions to recreation activities at the Poker Bar site will be temporary in nature.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Construction-related disruption of recreation activities associated with Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Impact 3.8-2: Construction and operation of the proposed Trinity River Bridges Project could result in an increased safety risk to recreational users. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, safety risks to recreational users would not increase because the new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

During construction of the Proposed Action there will be heavy equipment activity and construction vehicle traffic within and directly adjacent to the Trinity River. These construction-related activities could distract and /or result in potential harm to recreational users (i.e., boaters, anglers, swimmers) within the Project ESL. Although no existing recreational uses have been identified at this site, this impact would be significant, albeit temporary, and would occur during the construction period.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Potential safety risks to recreational uses from construction and operation of Alternative 1 are similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1

PB-2a: The BOR shall provide precautionary signage to warn recreational users of the potential safety hazards associated with project construction activities. Signs and/or buoys shall be placed within and directly adjacent to the Project ESL along the Trinity River in accordance with the requirements specified in Title 14, Article 6 of the California Code of Regulations. Additionally, public notification of proposed project

construction activities and associated safety hazards should be circulated in the local newspaper at least two weeks prior to the start of construction activities.

Significance after Mitigation: *Less than Significant.*

Impact 3.8-3: Construction activities associated with the proposed Trinity River Bridges Project could lower the river reaction aesthetic value by increasing turbidity levels in the Trinity River: ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, turbidity levels in the Trinity River would not increase because the new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

Constructing the new bridges at the Poker Bar site could increase turbidity in the Trinity River, leading to significant aesthetic impacts to recreationists participating in activities in proximity to the resultant turbid plume. Water quality objectives for the Trinity River specifically prohibit the alteration of suspended sediments and other materials in a way that causes nuisance or adversely affects beneficial uses (i.e., recreation). In addition to water quality objectives, the Basin Plan includes two prohibitions specific to construction, logging, and other associated nonpoint source activities:

- The discharge of soil, silt, bark, sawdust or other organic and earthen material from any logging, construction or associated activity of whatever nature into any stream or watercourse in the basin in quantities deleterious to fish, wildlife or other beneficial uses is prohibited.
- The placing or disposal of soil, silt, bark, slash or sawdust or other organic and earthen material from any logging construction or associated activity of whatever nature at locations where such material could pass into any stream or watercourse in the basin in quantities deleterious to fish, wildlife or other beneficial uses is prohibited.

Implementing the Proposed Action would increase turbidity and total suspended solids during construction in the river. During in-river construction activities, potential increases in turbidity levels would likely be greatest during demolition of the old abutments. Fine sediments may be suspended in the river for several hours following these activities. The extent of downstream sedimentation would be a function of the instream flow velocity and particle size. For example, fine-grained sediments like silts and clays can be carried several thousand feet downstream of the bridge pier construction limits, while larger-sized sediments like sands and gravels would tend to drop out of the water column within several feet of the construction limit. Increased turbidity and suspended solids levels would adversely affect water quality (refer to Section 3.5, Water Quality) and could also adversely affect anadromous fish species that are known to occur in the Trinity River (refer to Section 3.6, Fisheries Resources).

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Increased turbidity levels associated with construction of Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1

Implement Mitigation Measures (Proposed Action, Alternative 1, Alternative 2) **PB-1a-1d** from Section 3.5, Water Quality.

Significance after Mitigation: *Less than Significant.*

Impact 3.8-4: Construction activities associated with the proposed Trinity River Bridges Project could reduce or eliminate public access to the Trinity River. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, public access to the Trinity River would not be reduced or eliminated because the new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

No existing recreational uses have been identified at the Poker Bar site, although undeveloped access points used by local residents may be present within or adjacent to the Poker Bar ESL. During construction of the Proposed Action, staging areas and construction equipment pathways may temporarily reduce access to the Trinity River for anglers and other recreational users using informal access points within the Project ESL. This short-term disruption of informal access points is not anticipated to be significant due to the relative abundance of other river access points upstream and downstream of the Poker Bar site.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Under Alternative 1, reduction or elimination of public access to the Trinity River would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Impact 3.8-5: Construction and implementation of the proposed Trinity River Bridges Project could impact Wild and Scenic River values. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no adverse impacts to Wild and Scenic River values would occur because the new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

Construction and implementation of the Proposed Action would not permanently impact the scenic or recreational value of the Trinity River. Bridge replacement at the Poker Bar site is not considered a significant scenic impact because bridges already exist at this site. No permanent impacts to recreation will occur as a result of the Proposed Action. Temporary impacts to recreation are discussed under Impacts 3.8-1, 3.8-2, and 3.8-4 in this section; temporary impacts to the scenic quality of the river are discussed under Impact 3.8-3 of this section and in Section 3.14, Aesthetics.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Impacts to Wild and Scenic River values resulting from construction and implementation of Alternative 1 are similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Biggers Road Bridge

Impact 3.8-1: Construction activities associated with the proposed Trinity River Bridges Project could disrupt boating, fishing, and swimming activities within the Trinity River. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no construction-related disruption of boating, fishing, and swimming activities within the Trinity River would occur, because a new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream)

As previously discussed, the Trinity River within the Biggers Road ESL supports instream recreational uses, primarily fishing and wildlife watching. A campground and day use area offering an undeveloped boat launch and parking are located approximately one mile upstream of this site. These instream recreation activities occur throughout the year, but are more prevalent between the months of April through December.

During construction of the Proposed Action there will be construction equipment and activity in and near the Trinity River. Proposed staging areas, temporary working platforms, gravel access pads for pier removal, and construction equipment pathways may result in reduced access to the Trinity River for anglers and other recreational users using informal access points within the Project ESL. This impact is considered less than significant because any potential disruptions to recreation activities at the Biggers Road site will be temporary in nature and numerous access points for recreation exist up- and downstream of the Biggers Road ESL. In addition, construction of the new bridge at Biggers Road would not preclude the development of future public river access as described in the Trinity River Access Plan (County 1986).

Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

Construction-related disruption of recreation activities associated with Alternative 1 would be greater than the Proposed Action. Raising Steel Bridge Road and construction of a retaining wall is anticipated to require intermittent daily road closures for approximately four hours per day for two weeks during construction. This would disrupt public use of the Steel Bridge campground and day-use area located upstream of the Biggers Road site. This impact is considered less than significant because any potential disruptions to recreation activities will be temporary in nature and numerous access points to the Trinity River exist up- and downstream of this location.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Impact 3.8-2: Construction and operation of the proposed Trinity River Bridges Project could result in an increased safety risk to recreational users. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, construction-related safety risks to recreational users would not occur because a new bridge would not be constructed at the Biggers Road site; however, the potential benefits to long-term recreational safety associated with a new two-span structure (i.e., two less piers in river channel, increased elevation of bridge deck) would not be realized.

Proposed Action (Replacement Upstream)

During construction of the Proposed Action there will be heavy equipment activity and construction vehicle traffic within and directly adjacent to the Trinity River. Removal of the existing in-river piers following construction of the new bridge would require the placement of gravel access pads around each pier. Each gravel access pad would be in the river channel for no more than one week. These construction-related activities could distract and /or result in potential harm to recreational users (i.e., boaters, anglers, swimmers) within the Project ESL. This impact would be significant, albeit temporary, and would occur during the construction period.

Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

Potential safety risks to recreational uses from construction and operation of Alternative 1 are similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1

BR-2a: The BOR shall provide precautionary signage to warn recreational users of the potential safety hazards associated with project construction activities. Signs and/or buoys shall be placed within and directly adjacent to the Project ESL along the Trinity River in accordance with the requirements specified in Title 14, Article 6 of the California Code of Regulations. Additionally, public notification of proposed project construction activities and associated safety hazards should be circulated in the local newspaper at least two weeks prior to the start of construction activities.

Significance after Mitigation: *Less than Significant.*

Impact 3.8-3: Construction activities associated with the proposed Trinity River Bridges Project could lower the river reaction aesthetic value by increasing turbidity levels in the Trinity River. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, turbidity levels in the Trinity River would not increase because a new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream)

Constructing the new bridge at the Biggers Road site could increase turbidity in the Trinity River, leading to significant aesthetic impacts to recreationists participating in activities in proximity to the resultant turbid plume. Water quality objectives for the Trinity River specifically prohibit the alteration of suspended sediments and other materials in a way that causes nuisance or adversely affects beneficial uses (i.e., recreation). In addition to water quality objectives, the Basin Plan includes two prohibitions specific to construction, logging, and other associated nonpoint source activities:

- The discharge of soil, silt, bark, sawdust or other organic and earthen material from any logging, construction or associated activity of whatever nature into any stream or watercourse in the basin in quantities deleterious to fish, wildlife or other beneficial uses is prohibited.
- The placing or disposal of soil, silt, bark, slash or sawdust or other organic and earthen material from any logging construction or associated activity of whatever nature at locations where such material could pass into any stream or watercourse in the basin in quantities deleterious to fish, wildlife or other beneficial uses is prohibited.

Implementing the Proposed Action would increase turbidity and total suspended solids during construction in the river. Potential increases in turbidity levels would likely be greatest during construction of working platforms, drilled shafts, and bridge abutments, and during bridge removal. Fine sediments may be suspended in the river for several hours following these activities. The extent of downstream sedimentation would be a function of the instream flow velocity and particle size. For example, fine-grained sediments like silts and clays can be carried several thousand feet downstream of the bridge pier construction limits, while larger-sized sediments like sands and gravels would tend to drop out of the water column within several feet of the construction limit. Increased turbidity and suspended solids levels would adversely affect water quality (refer to Section 3.5, Water Quality) and could also adversely affect anadromous fish species that are known to occur in the Trinity River (refer to Section 3.6, Fisheries Resources).

Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

Increased turbidity levels associated with construction of Alternative 1 would be greater than the Proposed Action due to the roadway improvements and retaining wall construction associated with this alternative.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1

Implement Mitigation Measures (Proposed Action, Alternative 1, Alternative 2) **BR-1a-1d** from Section 3.5, Water Quality.

Significance after Mitigation: *Less than Significant.*

Impact 3.8-4: Construction activities associated with the proposed Trinity River Bridges Project could reduce or eliminate public access to the Trinity River. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, public access to the Trinity River would not be reduced or eliminated because a new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream)

Construction activities associated with the Proposed Action could temporarily restrict access to the Trinity River for recreational activities. This short-term disruption is not anticipated to be significant since public and open space lands along the Trinity River will continue to be accessible and available for public use (i.e., passive recreation) and the relative abundance of other river access points upstream and downstream of the project site. No permanent disruption or elimination of public access will result from construction or implementation of the Proposed Action.

Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

Under Alternative 1, public access to the Trinity River would be temporarily reduced both in within the Project ESL and upstream of the project, due to the roadway improvements on Steel Bridge Road. This short-term disruption is not anticipated to be significant since other public and open space lands along the Trinity River will continue to be accessible and available for public use (i.e., passive recreation). Construction and implementation of Alternative 1 would not eliminate any public access points.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Impact 3.8-5: Construction and implementation of the proposed Trinity River Bridges Project could impact Wild and Scenic River values. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no adverse impacts to Wild and Scenic River values would occur because a new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream)

Construction and implementation of the Proposed Action would not permanently impact the scenic or recreational value of the Trinity River. Bridge replacement at the Biggers Road site is not considered a significant scenic impact because a bridge already exists at this site. No permanent impacts to recreation will occur as a result of the Proposed Action. Temporary impacts to recreation are discussed under Impacts 3.8-1, 3.8-2, and 3.8-4 in this section; temporary impacts to the scenic quality of the river are discussed under Impact 3.8-3 of this section and in Section 3.14, Aesthetics.

Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

Impacts to Wild and Scenic River values resulting from construction and implementation of Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

SECTION 3.9

Socioeconomics, Population, and Housing

3.9 Socioeconomics, Population, and Housing

Pursuant to the NEPA requirements, this section presents regional and local information on socioeconomic conditions and potential impacts of the proposed Project on these socioeconomic conditions. A detailed discussion of poverty rates and population by race and ethnicity is included in Section 3.13, Environmental Justice. A large portion of this section has been taken directly from the California State University (Chico) CED publication *Trinity County 2001: Economic and Demographic Profile* (CED 2001). This section addresses CEQA issues only to the extent that potential social or economic effects of the project either directly relate to effects on the *physical* environment or would result in reasonably foreseeable indirect effects on the physical environment. Under the CEQA, "[e]conomic or social effects of a project shall not be treated as significant effects on the environment" (*CEQA Guidelines* § 15131).

3.9.1 Affected Environment/Environmental Setting

Regional Labor Market

Trinity County is a rural region with substantial amounts of public land. As a result, the region is relatively dependent on natural resources and tourism for its economic base.

Data for labor force, employment, and unemployment was obtained from the California Employment Development Department (EDD), which estimates labor force and employment statistics for all counties in the state. Data for employment by industry was collected from the U.S. Department of Commerce, Bureau of Economic Analysis (BEA) through the Regional Economic Information System (REIS). Differences in calculation methods and differences regarding what is considered employment may account for differences in EDD and REIS employment data (CED 2001).

Economic data for the County is also broken down by community. Based on input from the local advisory group, the County was divided into the following twelve communities: Coffee Creek, Trinity Center, Weaverville, Lewiston, Douglas City, Lower Trinity, Mid-Trinity, Helena and Junction City, Hyampom, Hayfork, Ruth/Mad River, and Zenia/Kettenpom (see **Figure 3.9-1**) (CED 2001).

Labor Force

The total labor force in the County during the 1990-1999 period is presented in **Table 3.9-1**. Labor force refers to the total civilian labor force and is the number of non-institutionalized people age 16 and older who are working or looking for work, and who are not in the military. Total labor force includes wage and salary workers, proprietors, and household workers. Labor force figures from the EDD are based upon place of residence. Annual average labor force is the twelve-month average labor force for a given year. The annual average labor force in the County for the 1990-99 period dropped 18.5 percent.

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North State Resources, Inc.

Figure 3.9-1
Trinity County Communities

TABLE 3.9-1 TRINITY COUNTY LABOR FORCE		
Year	**Labor Force**	**Percent Change**
1990	6,000	N/a
1991	5,730	-4.5%
1992	5,900	3.0%
1993	5,270	-10.7%
1994	5,560	5.5%
1995	5,320	-4.3%
1996	5,160	-3.0%
1997	5,180	0.4%
1998	5,020	-3.1%
1999	4,890	-2.6%

Source: Adapted from CED 2001

Table 3.9-2 shows the 1990 labor force for each community in the County.

TABLE 3.9-2 LABOR FORCE, 1990	
Community	**Total Labor Force**
Coffee Creek	131
Trinity Center	184
Weaverville	1,552
Lewiston	459
Douglas City	458
Lower Trinity	429
Mid Trinity	97
Helena and Junction City	244
Hyampom	75
Hayfork Area	923
Ruth / Mad River	289
Zenia / Kettenpom	110
Trinity County	4,951

Source: Adapted from CED 2001

Weaverville and Hayfork contain almost 50 percent of the County's total labor force: 31.3 percent in Weaverville and 18.8 percent in Hayfork.

Employment

Employment refers to total civilian employment as calculated by the EDD. Total civilian employment is the number of people employed in both the private sector and the non-military public sector. Employment includes wage and

salary workers, proprietors, and household workers. **Table 3.9-3** depicts total employment in the County and communities during 1990.

TABLE 3.9-3
COMMUNITY EMPLOYMENT IN TRINITY COUNTY, 1990

Community	Total Employment
Coffee Creek	131
Trinity Center	176
Weaverville	1476
Lewiston	426
Douglas City	421
Lower Trinity	376
Mid Trinity	97
Helena and Junction City	234
Hyampom	66
Hayfork Area	832
Ruth / Mad River	217
Zenia / Kettenpom	95
Trinity County	4,547

Source: Adapted from CED 2001

Weaverville and Hayfork are the County's largest employment centers (32.5 percent of total employment in Weaverville and 18.5 percent in the Hayfork Area). Only 1.5 percent of employees can be found in Hyampom, and Mid Trinity and Zenia/Kettenpom have 2.1 percent each.

Unemployment

Unemployment refers to the annual average civilian unemployment rate and represents the percentage of the total civilian labor force that is not employed. According to the California Department of Finance, unemployment in the County declined slightly throughout the period of 1992-1999. The annual average unemployment rate in the County generally remains far above the unemployment rate for California. For example, the County registered an average unemployment rate in 1999 of 11.6 percent, while the 1999 annual average unemployment rate for the state was 5.2 percent.

The County's labor market depends on such factors as distance to the County's main highway (299) and distance to Weaverville, the County's business center. Ruth/Mad River, Hayfork, Zenia/Kettenpom, and Hyampom are rural communities without good access to the highway. These communities have fewer job opportunities and a larger unemployment rate. In contrast, State Highway 299 goes through Helena and Junction City, Douglas City, and Lewiston, and connects these communities with Weaverville, the most developed community in the County with the largest labor market. These communities have more job opportunities and smaller unemployment rates. **Table 3.9-4** shows total unemployment and the unemployment rate in the County and by community.

TABLE 3.9-4
TOTAL UNEMPLOYMENT AND 1990 UNEMPLOYMENT RATES BY COMMUNITY, TRINITY COUNTY

Community	Total Unemployment	Unemployment Rate, 1990
Coffee Creek	0	0.00%
Trinity Center	8	4.35%
Weaverville	76	4.90%
Lewiston	33	7.19%
Douglas City	37	8.08%
Lower Trinity	53	12.35%
Mid Trinity	0	0.00%
Helena and Junction City	10	4.10%
Hyampom	9	12.00%
Hayfork Area	91	11.03%
Ruth / Mad River	72	24.91%
Zenia / Kettenpom	15	13.64%
Trinity County	404	8.16%

Source: Adapted from CED 2001

The community with the highest unemployment rate in the County according to the 1990 Census was Ruth/Mad River at 24.9 percent. The situation tends to be better in Helena and Junction City, which has a 4.1 percent unemployment rate, and Weaverville with 4.9 percent unemployment. Since 1990, unemployment within the county has been high, averaging 13.9 percent compared to the statewide average of 7.5 percent.

Employment by Industry

In this section, industries are defined using the *Standard Industrial Classification Manual*, published by the Executive Office of the President, U.S. Office of Management and Budget (OMB 1987). Unlike civilian labor force, employment by industry is based upon place of work and is the annual average number of jobs for a given industry in a particular year. Employment by industry is calculated using employment figures for both full-time and part-time workers. **Table 3.9-5** shows 1990 County employment by industry.

The industrial employment trend in the County reflects upon the recreational location of the County and its dependence upon tourism. Trinity County has experienced most of its growth through the 1990-1998 period in the services industry. The services industry for the County includes the following:

- Hotels and other lodging places
- Amusement and recreation services
- Museums, botanical, zoological gardens
- Personal services
- Business services
- Auto repair, services, and parking
- Health services
- Legal services
- Engineering and management services

TABLE 3.9-5
1990 EMPLOYMENT BY INDUSTRY, TRINITY COUNTY, CALIFORNIA

Community	Agriculture and Mining	Construction	Manufacturing	Transportation and Public Utilities	Whole-Sale Trade	Retail Trade	Finance, Insurance, and Real Estate	Services	Public Administration	Total
Coffee Creek	10	33	9	0	0	11	0	68	0	131
Trinity Center	19	35	19	9	0	27	12	47	8	176
Weaverville	74	56	183	112	7	272	106	520	146	1,476
Lewiston	14	47	83	9	0	100	30	86	57	426
Douglas City	15	69	39	18	0	85	37	148	10	421
Lower Trinity	78	35	76	16	22	43	0	98	8	376
Mid Trinity	26	8	9	0	0	28	0	19	7	97
Helena and Junction City	7	36	21	7	0	23	0	90	50	234
Hyampom	16	0	23	0	0	10	0	7	10	66
Hayfork Area	117	82	231	52	6	112	50	159	23	832
Ruth / Mad River	69	15	30	0	0	8	6	72	17	217
Zenia / Kettenpom	35	21	5	10	0	18	0	6	0	95
Trinity County	480	437	728	233	35	737	241	1,320	336	4,547
California	474,420	959,833	2,362,050	936,425	640,024	2,285,500	1,063,078	4,668,569	628,811	14,011,710

Source: Adapted from CED 2001

A total of 29.0 percent of the County's total employment provides the different types of services mentioned above.

Regional Income

When compared to the state, Trinity County has a much lower per capita income, a much lower median household income, and higher poverty rates. The industry with the highest earnings is government and public administration.

Per Capita Income

Data from the U.S. Bureau of the Census (Census) and the BEA shows that per capita income levels in Trinity County tend to be significantly below state levels. Per capita income is the average income computed for every man, woman, and child in a particular group. The Census derives per capita income by dividing the total income of a particular group by the total population in that group (excluding patients or inmates in institutional quarters). Per capita income data for Trinity County and California are depicted in **Table 3.9-6**.

TABLE 3.9-6
PER CAPITA INCOME, TRINITY COUNTY AND CALIFORNIA

Year	Trinity County	California
1990	$13,930	$21,393
1991	$14,191	$21,540
1992	$15,005	$22,246
1993	$15,289	$22,532
1994	$15,186	$22,953
1995	$15,858	$23,983
1996	$16,499	$25,142
1997	$16,916	$26,314
1998	$18,704	$27,503

Source: Adapted from CED 2001

The above data from the Census and the California Department of Finance shows that while the per capita income of Trinity County and the state are both increasing. Trinity County continues to lag farther behind the state. This is also true in the individual communities within the County. Per capita income for the twelve Trinity County communities is shown in **Table 3.9-7**.

TABLE 3.9-7
PER CAPITA PERSONAL INCOME, TRINITY COUNTY

Community	1989	1998
Coffee Creek	$14,148	$18,674
Trinity Center	$10,867	$14,343
Weaverville	$12,721	$16,790
Lewiston	$11,021	$14,547
Douglas City	$11,364	$14,999
Lower Trinity	$10,373	$13,692
Mid Trinity	$7,329	$9,674

TABLE 3.9-7
PER CAPITA PERSONAL INCOME, TRINITY COUNTY

Community	1989	1998
Helena and Junction City	$9,774	$12,901
Hyampom	$9,338	$12,325
Hayfork Area	$8,606	$11,359
Ruth / Mad River	$10,777	$14,225
Zenia / Kettenpom	$10,589	$13,976
Trinity County	$10,781	$14,237
California	$16,409	$22,255

Source: Adapted from CED 2001

While still below the state, the community in Trinity County that has a per capita income closest to that of the state is Coffee Creek. In 1989, Coffee Creek had a per capita income that was $2,261 less than the state. By 1998 this gap had widened to a difference of $3,581. The community in the County with the greatest disparity from the state is Mid Trinity. In 1989, the total per capita income in Mid Trinity was $9,080 less than the total per capita income of the state. By 1998 this gap had widened to a difference of $12,582. In comparing the per capita income of each community to the per capita income for the entire county, Coffee Creek had a per capita income $3,367 higher than that of the County followed by Weaverville which was $1,940 higher. Mid Trinity was the community with the lowest per capita income with $3,452 less than the total personal income per capita income of the County.

Median Household Income

Median household income indicates the midpoint of the distribution of household incomes. Half of all households have incomes above this level, and half have incomes below this level. Median household income in the County, though increasing, is still less than the state median household income. From 1989 to 1998, growth in median household income has been substantial, outpacing personal income growth in the County and growth in median household income for the state. Median household income for the County and its component communities is shown in **Table 3.9-8**.

The median household income for Trinity County remains well below that of the state. In 1990, the median household income for the County was 57.2 percent of the state's median household income. This represents $15,304 less money available for each household in the County than for each household in the rest of the state. By 1995 the median household income for the County had increased to 68.5 percent of the state's median household income, meaning $11,954 less for each household in the County than for households in the rest of the state.

The median household income for individual communities within the County in 1989 ranged from 45.4 percent of the state median household income to 101.4 percent of the state median household income. Estimates for 1998 show the median household income for individual communities in the County ranging from 41.8 percent to 93.4 percent of the state median. Of the individual communities in the County, Coffee Creek has the highest median household income. The community with the lowest median household income was Mid Trinity. Trinity County poverty rates are discussed in Section 3.13, Environmental Justice.

TABLE 3.9-8 MEDIAN HOUSEHOLD INCOME, TRINITY COUNTY		
Community	**1989**	**1998**
Coffee Creek	$36,310	$45,342
Trinity Center	$27,083	$33,820
Weaverville	$25,700	$32,093
Lewiston	$21,250	$26,536
Douglas City	$19,885	$24,831
Lower Trinity	$20,721	$25,875
Mid Trinity	$16,250	$20,292
Helena and Junction City	$18,933	$23,642
Hyampom	$17,875	$22,321
Hayfork Area	$16,511	$20,619
Ruth / Mad River	$27,901	$34,841
Zenia / Kettenpom	$18,090	$22,590
Trinity County	$20,494	$27,064
California	$35,798	$48,552

Source: Adapted from CED 2001

Regional Population

The population of Trinity County is generally characterized by stagnant population growth with higher proportions of white and retirement-age persons and lower proportions of Hispanic and young working-age persons. Approximately 80 percent of the County is owned by the government and 10 percent is in industrial timber production, much of which is restricted for development by Timber Production Zone zoning. Thus, only 10 percent of the County is private land usable for development purposes. The County's rugged terrain and remote location influences its demographics to a great extent, limiting the number of people who visit the County and further limiting where residents can live. Education levels of residents are typical of most of rural Northern California, with a greater proportion of high school graduates and a smaller proportion of college graduates.

Total Population/Population Density

The population estimates shown below in **Table 3.9-9** represent total population, which is the estimated number of people who were residing within the county boundaries, either permanently or temporarily, on January 1 of the given year. Total population includes foreign and domestic migrant workers. Trinity County's population grew at a considerably lower rate than California on average during the 1990s. Between 1990 and 1999, the County experienced an average annual growth rate of 0.04 percent compared to California's 1.49 percent average annual growth rate during the same period. The County has been experiencing a net decrease in population since 1995. The decline in the timber industry and attendant loss of jobs is viewed as one reason for the decline in population. The natural increase component of population growth tends to remain relatively constant, while net migration tends to show large variations from year to year.

TABLE 3.9-9
TRINITY COUNTY POPULATION

Year	Population	Percent Change
1980	11,850	N/a
1981	12,150	2.5%
1982	12,300	1.2%
1983	12,350	0.4%
1984	12,500	1.2%
1985	12,700	1.6%
1986	12,750	0.1%
1987	12,600	-1.2%
1988	12,700	0.8%
1989	13,000	2.4%
1990	13,050	0.4%
1991	13,050	0.0%
1992	13,100	0.4%
1993	13,200	0.8%
1994	13,350	1.1%
1995	13,400	0.4%
1996	13,400	0.0%
1997	13,300	-0.7%
1998	13,200	-0.8%
1999	13,100	-0.8%
2000	13,022	-0.3%
2001 (estimate)	13,116	0.7%

Source: Adapted from CED 2001

Table 3.9-10 depicts population data for each of the twelve communities in the County. Among these communities, Weaverville and Hayfork are the largest communities according to the number of residents. Weaverville contains 28.3 percent and Hayfork contains 21.7 percent of the county's total population.

TABLE 3.9-10
COMMUNITY POPULATION DATA, 1990

Area	Total Population	Population Density (per mi^2)
Coffee Creek	224	0.6
Trinity Center	588	2.2
Weaverville	3,695	72.8
Lewiston	1,352	15.8
Douglas City	997	5.0

TABLE 3.9-10
COMMUNITY POPULATION DATA, 1990

Area	Total Population	Population Density (per mi^2)
Lower Trinity	1,252	3.8
Mid Trinity	301	2.1
Helena and Junction City	675	2.4
Hyampom	301	1.3
Hayfork	2,838	5.4
Ruth/Mad River	612	1.4
Zenia/Kettenpom	228	0.9
Trinity County	13,063	4.1
California	29,805,968	189.8

Source: Adapted from CED 2001

As depicted in **Table 3.9-10**, most of the population of Trinity County is concentrated in Weaverville and Lewiston. The communities with the lowest concentration of the County's population, or the most remote areas of the county, are Coffee Creek and Zenia/Kettenpom.

Trinity County has a population density well below the population density of California as a whole. The population density of the County for January 1, 1990, is estimated at 4.11 persons per square mile, while the population density of California is estimated at 189.83 persons per square mile (CED 2001).

Trinity County population by race and ethnicity is discussed in detail in Section 3.13, Environmental Justice.

Regional Housing

Each year, the California Department of Finance, Demographic Research Unit estimates the number of housing units located in each county and incorporated place, as well as California as a whole. Housing units are estimated by adding new construction and units included in annexations and subtracting demolitions from the census benchmark.

Total Housing Units

Total housing units is the total number of single and multiple family dwellings located within the given jurisdiction. According to the California Construction Industry Research Board:

> *Single-family units include detached, semi-detached, row house and townhouse units. Row houses and townhouses are included when each unit is separated from the adjacent unit by an unbroken ground to roof party or firewall. Condominiums are included in single-family when they are of zero-lot-line or zero-property-line construction; when units are separated by an air space; or when units are separated by an unbroken ground-to-roof party or firewall. Multi-family units include duplexes, three to four unit structures, and apartment-type structures with five units or more. Multi-family housing also includes condominium units in structures of more than one living unit that do not meet the above single-family housing definition.*

The California Department of Finance uses the 1990 Census of Population and Housing as a benchmark for its estimates. The estimates are produced by adding new construction and annexations and subtracting demolitions from the census benchmark. **Table 3.9-11** shows the total housing units in the County.

TABLE 3.9-11
TRINITY COUNTY TOTAL HOUSING UNITS

Year	Single Family Units	Multiple Family Units	Total Housing Units	Annual Percent Change
1990	4,888	403	5,291	N/a
1991	4,929	403	5,332	0.8%
1992	4,991	409	5,400	1.3%
1993	5,051	411	5,462	1.1%
1994	5,098	411	5,509	0.9%
1995	5,147	411	5,558	0.9%
1996	5,190	411	5,601	0.8%
1997	5,224	411	5,635	0.6%
1998	5,253	411	5,664	0.5%
1999	5,293	411	5,704	0.7%
2000	5,341	411	5,752	0.8%

Source: CED 2001

From 1990 to 2000, the number of housing units in the County increased by 8.7 percent. Over the same period multiple family units increased by only 2.0 percent. In the state as a whole, single-family units increased by 11.0 percent from 1990 to 2000 and multiple family units increased by 7.2 percent for a total percent change of 9.7 percent. Since 1991, building has been in a downward trend in Trinity County. The majority of new housing consists of single-family units; very few permits for multiple family dwellings have been issued (CED 2001). From 1990 to 1999, an average of 45 permits for single-family units per year were issued. For the same period, there was an average of only one permit for multiple family dwellings per year. In most years no permits for multiple family dwellings were issued.

Local

Salt Flat

The Salt Flat community is residential and does not provide any socioeconomic benefit to Trinity County beyond property tax revenues. Existing land uses are rural residential; approximately 21 parcels comprise the community. Eight parcels contain single family homes used as the owner's primary residence, two parcels contain single family residences that are not the owner's primary residence, four parcels contain mobile homes and are utilized part of the time, one parcel contains multiple rental units (Mobile Home Parks, Single Family Living Units), and four parcels are vacant and zoned for residential use. The majority of existing parcels have been subdivided to their fullest extent and therefore present no potential for development. In addition, many of the existing parcels fall into Flood Hazard, Scenic Conservation Overlay, or Open Space zoning districts, making further development difficult. The private timberland located near Salt Flat Bridge is zoned for Timberland Production. No businesses are located within or adjacent to the Salt Flat ESL.

Bucktail

The area served by Bucktail Bridge is zoned Rural Residential and does not provide for any socioeconomic benefit beyond property tax revenues. No businesses are located within or adjacent to the Bucktail ESL.

Poker Bar

The area served by the Poker Bar Bridges is mainly residential with a minimum parcel size of five acres and does not provide for any socioeconomic benefit beyond property tax revenues. No businesses are located within or adjacent to the Poker Bar ESL.

Treadwell

The parcels served by Treadwell Bridge are zoned Rural Residential with a minimum parcel size of five acres and do not provide any socioeconomic benefit beyond property taxes. No businesses are located within or adjacent to the Treadwell ESL.

Planned Developments for All Four Bridge Sites

The zoning designations at all four bridge sites are largely residential, with a minimum parcel size ranging from one to 10 acres. Located directly adjacent to the river, a portion of many of these parcels fall into the Flood Hazard and Scenic Conservation Overlay designation zones, making further development of these areas difficult. The residential areas at all four bridges have generally been subdivided to their fullest extent, and with zoning designations of a minimum of five acres or less, have no potential for further development. Several parcels, zoned for residential use, are currently vacant and the potential for development of a single family residence on such parcels does exist. There are several large private timberland holdings, and the potential for Salt Flat Bridge, Poker Bar Bridges, or Bucktail Bridge to be used as an access route for logging trucks does exist. Most of the public land in the area is managed by the BLM consistent with the WSRA and their adopted land management plan for the area. The parcels served by the bridges generally have no further potential for development.

3.9.2 Relevant Plans and Policies

Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970

Persons and businesses displaced as a result of construction and/or operation of the proposed Project are protected under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended April 2, 1987. This law was designed to mitigate adverse impacts experienced by private property owners in the public taking of land. Under this Act, persons or businesses displaced would receive compensation from the public entity that funds the project. Listed below are some of the major costs a public entity must compensate a displaced person for as part of the cost of acquisition of real property for a public use. A public entity is required by law to provide these and other compensations as outlines in the relocation assistance guidelines:

- Actual and reasonable expense in moving him/herself, a family, a business, or a farm operation, including expense in moving personal property;
- Actual direct losses of tangible personal property as a result of moving or discontinuing a business or farm operation;
- Actual and reasonable expenses in searching for a replacement business or farm; and

- A fixed or in-lieu payment to compensate eligible displaced businesses for a substantial loss of existing patronage.

The act also stipulates that a public entity shall not participate in a project that will displace individuals from their homes unless comparable replacement dwellings will be available within a reasonable period before displacement. A comparable replacement is defined as one that is

- decent, safe, and sanitary;
- functionally equivalent to the displaced dwelling;
- an adequate size to accommodate the family being relocated;
- in an area not subject to unreasonable adverse environmental conditions;
- in a located generally not less desirable than the location of the displacement dwelling with respect to accessibility to public utilities, commercial and public facilities, and place of employment; and
- on a site that is typical in size for residential development with normal size improvements (Caltrans 1989).

Trinity County General Plan Goals

The following general plan goals have been established by the County:

1. To provide more diverse sources of income and stabilize the economy.
2. To provide higher average in income levels.

Land Use Element Goals and Objectives

Cultural

Goal: To retain the rural character of Trinity County:

- By limiting dwelling density based on retention of rural character and conservation of important resources, including historic sites and structures, and wildlife.
- By considering the "rights" of the individual when making decisions as well as the "rights" of the community.

Goal: To encourage adequate housing and residential space to keep pace with a moderate population growth:

- By clearly designating those areas in which additional housing is necessary and desirable.
- By minimizing the "bureaucratic machinery" a land owner faces when attempting to develop housing that is consistent with this plan.
- Avoid the need for increased public services.
- By keeping density, and thus demand, as low as possible in the most rural areas.
- By determining "threshold" densities that require expensive public services.
- By exploring outside funding possibilities available to the county when new or improved services must be provided.

Economic

Goal: To maintain and enhance a viable economic base for Trinity County:

- By maintaining as many privately owned prime timber, agricultural, mineral, sport and commercial fishery, and animal-producing lands as possible.
- By encouraging tourism.
- By implementing the General Plan so that it is applied fairly and consistently and by stabilizing land-use regulations.

Trinity County Housing Policies

In order to provide an adequate supply of housing, the County has established the following policies:

1. Encourage the overall production of housing.
2. Encourage the production of housing opportunities for all income groups.
3. Work towards improving infrastructure capacity.
4. Encourage the production of housing for persons with special housing needs.
5. Encourage the repair and rehabilitation of existing housing stock.
6. Ensure that there are adequate sites available to support future housing needs.
7. Prevent discrimination in housing.
8. Encourage citizen participation during the preparation of the housing element and other general and community plan documents.

Project Consistency with the Trinity County General Plan and Community Plans

As described in Chapter 1, Introduction, the proposed Project would:

- Provide safe and reasonable year-round access to parcels of land served by the Salt Flat, Bucktail, Poker Bar and Biggers Road bridges across the Trinity River.
- Allow dam operators maximum flexibility to provide instream flow releases from Lewiston Dam adequate to meet the fishery and geomorphic flow needs for the mainstem Trinity River and to fulfill the Trinity River TMDL for sediment and restore the coldwater fishery beneficial use.

The following project objectives apply to the project's lead/responsible agencies for the CEQA purposes:

- Minimize the threat to public safety and potential damage to property posed by the existing high likelihood of flooding
- Provide maximum flexibility for implementing a variety of potential Trinity River fishery flow alternatives, as well as other flow alternatives outside the ROD such as increasing dam releases during periods of high downstream tributary inflows

- Allow for high-efficiency sediment transport in the Trinity River to maximize the amount of sediment transported on a per acre-foot basis so that Trinity River can be removed from California's Clean Water Act Section 303(d) Impaired Waterbodies List, while minimizing the total amount of water necessary to transport sediment through the river system
- Provide maximum flexibility for operations of the TRD during periods of high runoff and flooding which could result in increased water in storage available for multiple beneficial uses (i.e., fisheries, recreation, water supply, water quality and power production)
- Provide alternative access on a short-term basis during project implementation
- Recovery of fish and wildlife resources that are listed as threatened and endangered

The following objectives apply to the projects responsible and trustee agencies, including the HVT, NCRWQCB, SLC, CDFG, and the SWRCB:

- Comply with the Water Code to ensure the highest reasonable quality of waters of the state and allocate those waters to achieve the optimum balance of beneficial uses
- Protect the public trust assets of the Trinity River watershed
- Protect, conserve, restore, and manage fish, wildlife, and native plant resources
- Comply with the Water Quality Control Plan for the Hoopa Valley Indian Reservation to preserve and enhance water quality on the Reservation, and to protect the beneficial uses of water.

These project objectives are consistent with the applicable general plan goals and policies summarized above.

3.9.3 Environmental Consequences/Impacts and Mitigation Measures

Methodology

The following section provides a brief overview of the analytic methodologies utilized to assess potential socioeconomic impacts of the proposed Project. These methodologies included qualitative assessments of potential project effects associated with employment and income, as well as any potential plan conflict, population growth, displacement, and community disruption impacts. Trinity County was determined to be the area of potential socioeconomic effect due to the project's overall size and its location within the County.

Employment generation results in social benefits even if the employment is short-lived. The project would generate new, temporary employment opportunities for Trinity County residents associated with the new bridge construction. Income generation is one measure of economic activity in a community. Income growth spurs secondary economic effects that ultimately result in increased employment activities. The project could directly generate income growth through the payment of wages and salaries. The duration of income growth, however, is an important consideration in determining the significance of an income change. Short-term income growth, unless substantial, may result in little increased long-term economic activity.

Significant increases in population concentration or growth can result in negative socioeconomic effects, such as lack of affordable housing, or can result in socioeconomic benefits, such as increased local revenues. The potential for the

project to result in an increase in population concentration or an increase in population growth is qualitatively analyzed.

The displacement of people (through loss of residences or places of employment) generally results in negative socioeconomic effects, such as a decrease in the local work force and loss of employment opportunities, in addition to the direct impact to the people concerned. The potential for the project to result in the displacement of people is qualitatively analyzed.

Significance Criteria

For NEPA purposes, a threshold of ten percent was used to determine employment and income changes, because changes exceeding ten percent may have a regional effect.

Changes in employment opportunities would be considered significant under NEPA if the project resulted in increased or decreased employment opportunities for the population within Trinity County by at least 10 percent. Similarly, changes in income generation would be considered significant under NEPA if the project resulted in a permanent change in income generation in Trinity County by at least 10 percent. Other criteria used in the analysis and relevant under NEPA include:

- The project resulted in the displacement of an existing business;
- The project induced substantial growth or concentration of population; or
- The project displaced a large number of people.

For purposes of the CEQA, under which "[e]conomic or social effects of a project shall not be treated as significant effects on the environment," project effects on population and housing are relevant only if they either (i) directly relate to an effect on the physical environment, in which case a lead agency may, but need not, consider economic or social effects in determining whether such physical effects are significant, or (ii) would result in a reasonably foreseeable indirect effect on the physical environment (See *CEQA Guidelines*, § 15131). Thus, under the CEQA, the proposed project would have a significant impact on population and housing if it:

- Induces substantial growth in an area, either directly or indirectly;
- Displaces substantial numbers of existing housing necessitating the construction of replacement housing elsewhere; and/or
- Displaces substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Impacts and Mitigation Measures

Table 3.9-12 summarizes the potential socioeconomic impacts resulting from construction and operation of the proposed Project.

TABLE 3.9-12
SUMMARY OF SOCIOECONOMIC IMPACTS FROM THE PROPOSED TRINITY RIVER BRIDGES PROJECT

Impact	Project Site	No-Action Alternative	Proposed Action	Alternative 1	Alternative 2
1. Bridge construction associated with the Trinity River Bridges Project would provide employment opportunities for construction workers in Trinity County.	Salt Flat	NI	B	B	B
	Bucktail	NI	B	B	N/A
	Poker Bar	NI	B	B	N/A
	Biggers Road	NI	B	B	N/A
2. Construction and implementation of the Trinity River Bridges Project could result in the disruption or displacement of local businesses.	Salt Flat	NI	NI	NI	NI
	Bucktail	NI	NI	NI	N/A
	Poker Bar	NI	NI	NI	N/A
	Biggers Road	NI	NI	NI	N/A
3. Bridge construction associated with the Trinity River Bridges Project would result in an increased demand for housing during construction.	Salt Flat	NI	LS	LS	LS
	Bucktail	NI	LS	LS	N/A
	Poker Bar	NI	LS	LS	N/A
	Biggers Road	NI	LS	LS	N/A

Notes:

LS = Less than Significant S=Significant NI=No Impact SU=Significant Unavoidable
N/A=Not Applicable B =Beneficial

Salt Flat Bridge

Impact 3.9-1: Bridge construction associated with the Trinity River Bridges Project would provide employment opportunities for construction workers in Trinity County. ***No Impact for No-Action Alternative; Beneficial Impact for Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, no employment opportunities would be created because a new bridge would not be constructed at the Salt Flat site.

Proposed Action (Replacement Downstream, Private Ownership)

Construction of a new bridge at the Salt Flat site would generate temporary construction-related employment in Trinity County. The number of design, construction, and clerical positions required to complete the project is undetermined, but is expected to add a small percentage to existing local jobs. However, employment would only last during the estimated 220-day construction period. In addition, the project would provide direct local employment opportunities only if workers are hired from the local labor force.

Alternative 1(Replacement Upstream, Private Ownership)

Effects associated with temporary employment opportunities under Alternative 1 are similar to the Proposed Action.

Alternative 2 (Replacement Upstream, Public Ownership)

Effects associated with temporary employment opportunities under Alternative 2 are similar to the Proposed Action and Alternative 1.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1; Alternative 2

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Impact 3.9-2: Construction and implementation of the Trinity River Bridges Project could result in the disruption or displacement of local businesses. ***No Impact for No-Action Alternative, Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, no disruption or displacement of local businesses would take place because a new bridge would not be constructed at the Salt Flat site.

Proposed Action (Replacement Downstream, Private Ownership)

Salt Flat is a rural residential area. No local businesses are located within or adjacent to the project study area. Construction and operation of new bridge structure at the Salt Flat site would not result in the significant disruption or displacement of local businesses.

Alternative 1(Replacement Upstream, Private Ownership)

Temporary disruption of local businesses associated with Alternative 1 is similar to the Proposed Action.

Alternative 2 (Replacement Upstream, Public Ownership)

Temporary disruption of local businesses associated with Alternative 2 is similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1; Alternative 2

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Impact 3.9-3: Bridge construction associated with the Trinity River Bridges Project would result in an increased demand for housing during construction. ***No Impact for No-Action Alternative; Less than Significant Impact for Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, no increased demand for housing during construction would take place because a new bridge would not be constructed at the Salt Flat site.

Proposed Action (Replacement Downstream, Private Ownership)

Salt Flat is a rural residential area. Few rental opportunities exist within the project study area. What rental property does occur in adjacent rural residential areas is typically seasonal rental property that rents by the week. More affordable and more readily available short-term rentals are concentrated in the nearby community of Weaverville and, to a lesser degree, Lewiston. A short-term increase in the demand for housing in these two communities could occur as a result of construction workers seeking lodging during the construction season. This would be a less than significant impact due to the short time during which the housing demand would potentially increase.

Alternative 1(Replacement Upstream, Private Ownership)

Temporary increases in the demand for housing during construction associated with Alternative 1 would be similar to the Proposed Action.

Alternative 2 (Replacement Upstream, Public Ownership)

Temporary increases in the demand for housing during construction associated with Alternative 2 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1; Alternative 2

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Bucktail Bridge

Impact 3.9-1: Bridge construction associated with the Trinity River Bridges Project would provide employment opportunities for construction workers in Trinity County. ***No Impact for No-Action Alternative; Beneficial Impact for Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no employment opportunities would be created because the west approach roadway and the existing culvert will not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway)

Replacement of west approach roadway and the existing culvert (Proposed Action) or raising the upstream levee (Alternative 1) would generate temporary construction-related employment in Trinity County. The number of design, construction, and clerical positions required to complete the project is undetermined, but is expected to add a small percentage to existing local jobs. This is expected to add a small percentage to existing local job opportunities; however, employment would only last during the estimated 90-day construction period. In addition, the project would provide direct local employment opportunities only if workers are hired from the local labor force.

Alternative 1 (Raise Existing Upstream Levee)

Temporary employment opportunities for construction workers in Trinity County would be slightly less under Alternative 1 because no roadway or culvert work would take place.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Impact 3.9-2: Construction and implementation of the Trinity River Bridges Project could result in the disruption or displacement of local businesses. ***No Impact for No-Action Alternative, Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no disruption or displacement of local businesses would take place because the west approach roadway and the existing culvert would not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway)

Bucktail is a rural residential area. No local businesses are located within or adjacent to the project study area. Construction and operation of new bridge structure at the Bucktail site would not result in the significant disruption or displacement of local businesses.

Alternative 1 (Raise Existing Upstream Levee)

Temporary disruption to local businesses due to construction-related traffic associated with Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Impact 3.9-3: Bridge construction associated with the Trinity River Bridges Project would result in an increased demand for housing during construction. ***No Impact for No-Action Alternative; Less than Significant Impact for Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no increased demand for housing during construction would take place because the west approach roadway and the existing culvert would not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway)

Bucktail is a rural residential area. Few, if any, rental opportunities exist within the project study area. What rental property does occur in adjacent rural residential areas is typically seasonal rental property that rents by the week. More affordable and more readily available short-term rentals are concentrated in the nearby community of Weaverville and, to a lesser degree, Lewiston. A short-term increase in the demand for housing in these two communities could occur as a result of construction workers seeking lodging during the construction season. This

would be a less than significant impact due to the short time during which the housing demand would potentially increase.

Alternative 1 (Raise Existing Upstream Levee)

The potential temporary increase in the demand for housing during construction associated with Alternative 1 would likely be less than that associated with the Proposed Action. Fewer construction staff may be required to raise the levee under Alternative 1, particularly since no associated roadway or culvert work would occur under this alternative. This would be a less than significant impact.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Poker Bar Bridges

Impact 3.9-1: Bridge construction associated with the Trinity River Bridges Project would provide employment opportunities for construction workers in Trinity County. ***No Impact for No-Action Alternative; Beneficial Impact for Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no employment opportunities would be created because the new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

Replacement of the Poker Bar Bridges upstream (Proposed Action) would generate temporary construction-related employment in Trinity County. The number of design, construction, and clerical positions required to complete the project is undetermined, but is expected to add a small percentage to existing local job opportunities; however, employment would only last during the estimated 200-day construction period. In addition, the project would provide direct local employment opportunities only if workers are hired from the local labor force.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Temporary employment opportunities for construction workers in Trinity County under Alternative 1 are similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Impact 3.9-2: Construction and implementation of the Trinity River Bridges Project could result in the disruption or displacement of local businesses. ***No Impact for No-Action Alternative, Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no disruption or displacement of local businesses would take place because the new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

Poker Bar is a rural residential area. No local businesses are located within or adjacent to the project study area. Construction and operation of new bridge structures at the Poker Bar site would not result in the significant disruption or displacement of local businesses.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Temporary disruption to local businesses due to construction-related traffic associated with Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Impact 3.9-3: Bridge construction associated with the Trinity River Bridges Project would result in an increased demand for housing during construction. ***No Impact for No-Action Alternative; Less than Significant Impact for Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no increased demand for housing during construction would take place because the new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

Poker Bar is a rural residential area. Few, if any, rental opportunities exist within the project study area. What rental property does occur in adjacent rural residential areas is typically seasonal rental property that rents by the week. More affordable and more readily available short-term rentals are concentrated in the nearby community of Weaverville and, to a lesser degree, Lewiston. A short-term increase in the demand for housing in these two communities could occur as a result of construction workers seeking lodging during the construction season. This would be a less than significant impact due to the short time during which the housing demand would potentially increase.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

The potential temporary increase in the demand for housing during construction associated with Alternative 1 is similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Biggers Road Bridge

Impact 3.9-1: Bridge construction associated with the Trinity River Bridges Project would provide employment opportunities for construction workers in Trinity County. ***No Impact for No-Action Alternative; Beneficial Impact for Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no employment opportunities would be created because a new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream)

Construction of a new bridge at the Biggers Road site would generate temporary construction-related employment in Trinity County. The number of design, construction, and clerical positions required to complete the project is undetermined, but is expected to add a small percentage to existing local job opportunities; however, employment would only last during the estimated 200-day construction period. In addition, the project would provide direct local employment opportunities only if workers are hired from the local labor force.

Alternative 1(Replacement Upstream, Raise Steel Bridge Road)

Temporary employment opportunities associated with Alternative 1 would be slightly greater than the Proposed Action due to the additional roadway work associated with this alternative. Due to the short duration of employment, this is considered less than significant.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Impact 3.9-2: Construction and implementation of the Trinity River Bridges Project could result in the disruption or displacement of local businesses. ***No Impact for No-Action Alternative, Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no disruption or displacement of local businesses would take place because a new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream)

The Biggers Road site is a rural residential area. No local businesses are located within or adjacent to the project study area. Construction and operation of new bridge structures at the Biggers Road site would not result in the significant disruption or displacement of local businesses.

Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

Construction-related traffic disruptions (i.e., delays, backups, blockages, road closures) could be potentially greater for Alternative 1 due to the roadway improvements associated with this alternative; however, as previously mentioned, there are no businesses located within or adjacent to the Biggers Road ESL. Traffic impacts are evaluated in Section 3.18, Transportation / Traffic Circulation.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Impact 3.9-3: Bridge construction associated with the Trinity River Bridges Project would result in an increased demand for housing during construction. ***No Impact for No-Action Alternative; Less than Significant Impact for Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no increased demand for housing during construction would take place because a new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream)

The Biggers Road site is a rural residential area. Few, if any, rental opportunities exist within the project study area. What rental property does occur in adjacent rural residential areas is typically seasonal rental property that rents by the week. More affordable and more readily available short-term rentals are concentrated in the nearby community of Weaverville and, to a lesser degree, Lewiston. A short-term increase in the demand for housing in these two communities could occur as a result of construction workers seeking lodging during the construction season. This would be a less than significant impact due to the short time during which the housing demand would potentially increase.

Alternative 1(Replacement Upstream, Raise Steel Bridge Road)

Temporary increases in the demand for housing during construction associated with Alternative 1 could be slightly greater than the Proposed Action due to the roadway work associated with this alternative. This would be a less than significant impact due to the short duration of the housing demand increase.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

SECTION 3.10

Tribal Trust

3.10 Tribal Trust

3.10.1 Affected Environment/Environmental Setting

The need to restore and maintain the natural production of anadromous fish in the Trinity River mainstem originates partly from the federal government's trust responsibility to protect the fishery resources of the region's Indian tribes. The Trinity River Basin Fish and Wildlife Restoration Act of 1984 (Public Law 98-541) expressly acknowledges the tribal interest in the Basin's fishery resources by declaring that the measure of successful restoration of the Trinity River fishery includes the "ability of dependent tribal...fisheries" to participate fully, through enhanced in-river "harvest opportunities, in the benefits of restoration." In addition, the 1992 CVPIA specifically recognizes the federal trust responsibility in regard to the Trinity River fishery. The proposed Project could potentially impact anadromous fish, non-anadromous fish, water, wildlife, vegetation, and overall riverine health. These impacts could consequently affect the sociocultures and economies of the tribes.

This section focuses principally on the interests of the Hoopa Valley and Yurok Tribes since, of the Indian tribes of the Klamath/Trinity Region, their interests would be the most directly affected by the project. It should be understood, however, that the impacts are pertinent to the Karuk and Klamath people as well since they share a common regional heritage.

Regional Setting

The United States' recognition of the importance of rivers and fish to the Indian people of the Klamath/ Trinity Region is exemplified by the very shape and location of the lands first set aside for their reservations. The Secretary's own instructions at the time were, "to select these reservations from such 'tracts of land adapted as to soil, climate, water privileges, and timber, to the comfortable and permanent accommodation of the Indians'" (USFWS et al. 2000a). In 1855, Indian Agent S. Whipple, when speaking of the Yurok, noted that, "The river is abundantly supplied with Salmon. A fine large fish quite easily taken by the Indians and which is very properly regarded by the Indian as his staff of life" (USFWS et al. 2000a).

In that same year, President Pierce established the Klamath River Reservation. The reservation (not to be confused with the Klamath Reservation in Oregon) was designated as a strip of territory commencing at the Pacific Ocean and extending one mile in width on each side of the Klamath River for a distance of approximately 20 miles. This reservation was created entirely within the aboriginal territory of the Yurok. Although the federal government's intent was to eventually move all the region's Indians onto the Klamath River Reservation, only some Yurok and Tolowa were moved. Flooding along the Klamath River in 1862 led to the closing of the area's Indian Bureau office and contributed to the erroneous belief that the reservation had been abandoned, though it was still occupied by the Yurok (USFWS et al. 2000a).

On August 21, 1864, the DOI issued a proclamation and instructions that established the Hoopa Valley Reservation on the Trinity River pursuant to legislation enacted by Congress that same year. The reservation is 12 miles square and bisected by 15 miles of the river (it has often been called the Square or the 12-mile Square). In 1876 President Grant issued an Executive Order formally establishing the boundaries of the Hoopa Valley Reservation, and provided that the land contained within those boundaries, "be withdrawn from public sale, and set apart in California by act of Congress approved April 8, 1864" (USFWS et al. 2000a).

Efforts soon began to provide a single contiguous homeland for the region's Indian people by connecting the Klamath River Reservation to the Hoopa Valley Reservation. Paris Folsom, a Special Agent for the DOI, proposed that the two reservations be connected in his "Report of Special Agent on Conditions and Needs of Non-Reservation Klamath Indians," sent to the Commissioner of Indian Affairs in 1885.

In 1891, President Harrison extended the Hoopa Valley Reservation from the mouth of the Trinity River to the ocean, thereby encompassing and including the Hoopa Valley Reservation, the original Klamath River Reservation, and the connecting strip between. By that time, as a result of the Dawes Act of 1887, much of the Klamath River Reservation and extension lands (the 20-mile strip that connected the two reservations is commonly referred to as the "Connecting Strip" or "Extension") not already claimed as allotments by resident Indians had been opened up to non-Indian settlement.

This led to checkerboard ownership of the Yurok portions of both the Extension and former Klamath River Reservation. Through various means, several timber companies quickly consolidated and heavily logged much of this land.

From 1891 through 1988, the Hoopa Valley Reservation was comprised of the Hoopa Valley Square, the Extension, and the original Klamath River Reservation. In 1988, Congress, under the Hoopa-Yurok Settlement Act, separated the Hoopa Valley Reservation into the present Yurok Reservation (a combination of the original Klamath River Reservation and Extension) and Hoopa Valley Reservation. **Figure 3.10-1** shows the current reservation boundaries.

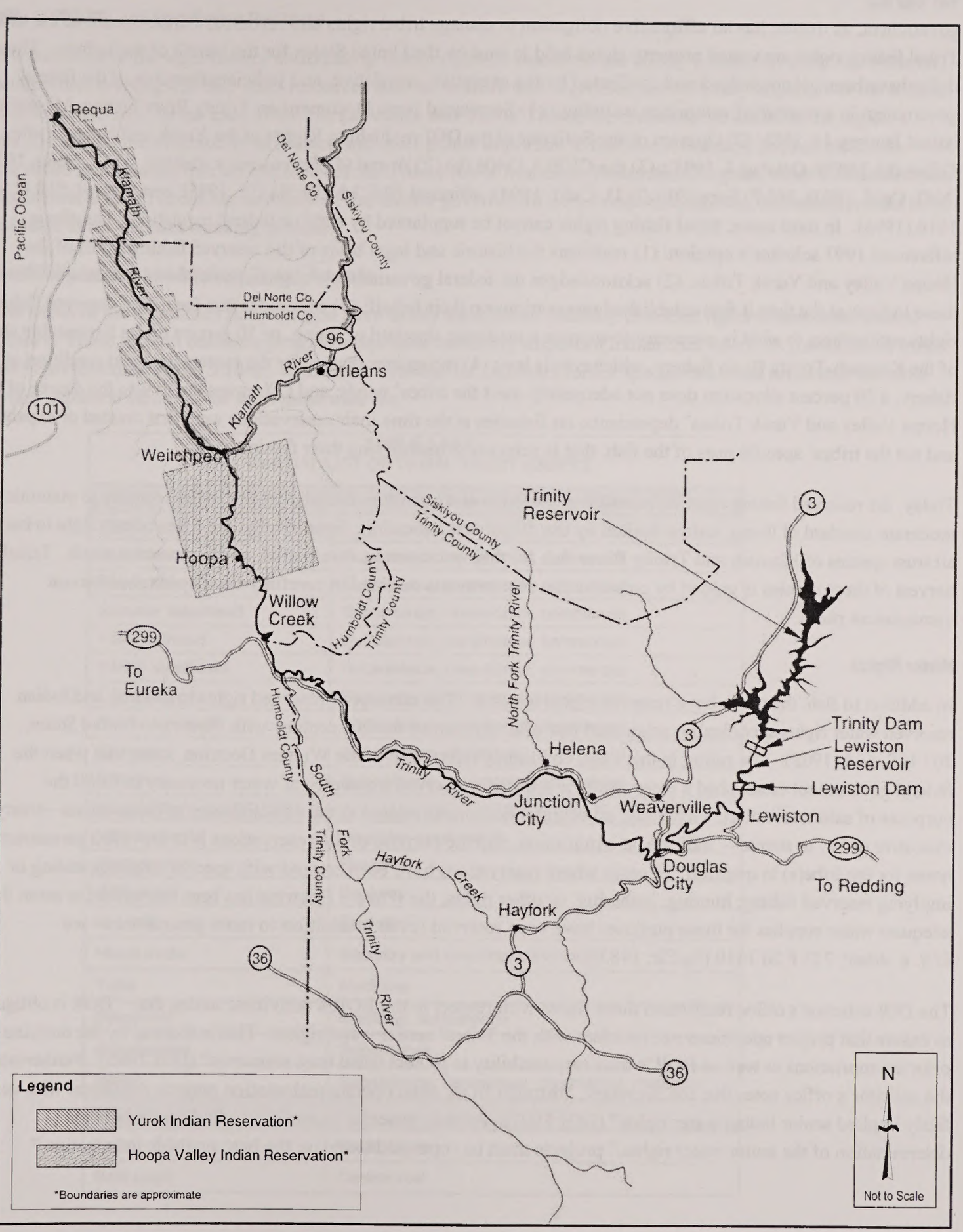
Indian Reserved Rights

By first creating reservations "for Indian Purposes," the United States sought to provide the Hoopa Valley and Yurok Tribes with the opportunity to remain mostly self-sufficient, exercise their rights as sovereigns, and maintain their traditional ways of life (USFWS et al. 2000a). Implicit in this objective was an expectation that the federal government would protect the tribes and their resources (a protection that extended beyond reservation borders).

The Unites States has a trust responsibility to protect tribal trust resources. In general, this tribal trust responsibility requires that the United States protect tribal fishing and water rights, which are held in trust for the benefit of the tribes (DOI 1995). This trust responsibility is one held by all federal agencies. For the proposed Project, the BOR is obligated to ensure that project operations do not interfere with the Tribes' senior water rights. Pursuant to its trust responsibility and consistent with its other legal obligations, the BOR must also prevent activities under its control that would adversely affect Tribal fishing rights, even when those activities take place off-reservation.

Fishing Rights

Salmon, steelhead, sturgeon, and lamprey that spawn in the Trinity River pass through the Hoopa Valley and Yurok Reservations and are harvested in tribal fisheries. The fishing traditions of these tribes stem from practices that far pre-date the arrival of non-Indians. Accordingly, when the federal government established what are today the Hoopa Valley and Yurok Indian Reservations on the Trinity and lower Klamath Rivers, it reserved for the benefit of the Indian tribes of those reservations a right to the fish resources in the rivers running through them. The Yurok and Hoopa Valley Tribes' fishing rights entitle them to take fish for ceremonial, subsistence, and commercial purposes. The United States has long recognized the rights of the tribes of the Klamath/Trinity River Basin to fish. The federal



10006 - Trinity River Bridge Replacement/Graphics/Fig_3.10-1.ai 03/25/03 VB Source: Trinity River Draft EIR

Figure 3.10-1
Trinity Basin Indian Reservations

government, as trustee, has an affirmative obligation to manage tribal rights and resources for the benefit of the tribes. Tribal fishing rights are vested property rights held in trust by the United States for the benefit of the Indians. These rights have been acknowledged and confirmed by the executive, legislative, and judiciary branches of the federal government in a number of authorities including: (1) Secretarial Issue Document on Trinity River Fishery Mitigation, issued January 14, 1981; (2) Opinion of the Solicitor of the DOI re: Fishing Rights of the Yurok and Hoopa Valley Tribes (M-36979: October 4, 1993); (3) the CVPIA (3406 (b) (23)); and (4) *Parravano v. Babbitt*, 837 F. Supp. 1034 (N.D. Calif. 1993), 861 F. Supp. 914 (N.D. Calif. 1994), affirmed 70 F.3d 539 (9th Cir. 1995), cert. denied, 518 U.S. 1016 (1996). In most cases, tribal fishing rights cannot be supplanted by state or federal regulation. The above referenced 1993 solicitor's opinion: (1) reaffirms the historic and legal basis of the reserved fishing rights of the Hoopa Valley and Yurok Tribes; (2) acknowledges the federal government's cognizance of the importance of fish to these Indians at the time it first established reservations on their behalf; (3) concludes that the tribes' reserved fishing rights entitle them to what is necessary to support a moderate standard of living, or 50 percent of the harvestable share of the Klamath-Trinity Basin fishery, whichever is less; (4) recognizes that under the current depleted condition of the fishery, a 50 percent allocation does not adequately meet the tribes' needs; and (5) argues that it was the degree of the Hoopa Valley and Yurok Tribes' dependence on fisheries at the time their reservations were first created or expanded, and not the tribes' specific uses of the fish, that is relevant in quantifying their fishing rights.

Today, the reserved fishing right includes the right to harvest quantities of fish that the Indians require to maintain a moderate standard of living, unless limited by the 50 percent allocation. Specifically, the tribes have a right to harvest all trust species of Klamath and Trinity River fish for their subsistence, ceremonial, and commercial needs. Tribal harvest of these species is guided by conservation requirements outlined in carefully developed tribal harvest management plans.

Water Rights

In addition to fish, the tribes have reserved rights to water. The concept of reserved rights in general, and Indian reserved water rights specifically, originated just after the start of the 20th century with *Winters v. United States*, 207 U.S. 564 (1908). The ruling in this case, commonly referred to as the Winters Doctrine, states that when the federal government established a reservation, it implicitly reserved a quantity of water necessary to fulfill the purposes of said reservation. Generally, all original documents related to the establishment of reservations—treaty, executive order, or statute— indicate, at a minimum, that the purpose of the reservations is to provide a permanent home for the tribe(s) in question. In cases where reservations have been created with specific language stating or implying reserved fishing, hunting, gathering, or other rights, the *Winters* Doctrine has been interpreted to mean that adequate water supplies for these purposes have been reserved (even in addition to more general uses - see *U.S. v. Adair*, 723 F.2d 1410 [9th Cir. 1983]).

The DOI solicitor's office reaffirmed these rights with respect to the BOR's activities, stating that: "BOR is obligated to ensure that project operations not interfere with the Tribes' senior water rights. This is dictated by the doctrine of prior appropriations as well as BOR's trust responsibility to protect tribal trust resources" (DOI 1995). Furthermore, the solicitor's office notes that the Secretary, "through BOR, must operate reclamation projects consistent with vested, fairly implied senior Indian water rights" (DOI 1997). Further, absent a "completed adjudication or other determination of the senior water rights," projects must be "operated based on the best available information."

Rights to Wildlife and Vegetation Resource

While the focus of the legal history surrounding Indian rights to resources has mostly focused on water and fisheries, it is important to recognize that other resources such as wildlife and vegetation are extremely important to the tribes and no less reserved. In the case of the Hoopa Valley and Yurok Tribes, the decline in the health of the region's rivers has limited the availability of grasses and other plants important to traditional basketry, art, and medicine. Thus, while anadromous fish are the focus of the Trinity River Mainstem Restoration Program, other trust assets such as vegetation also fall under the umbrella of the federal government's trust responsibility and, accordingly, need to be considered in the decision-making process.

Potentially Impacted Indian Trust Assets

Indian tribes of the Klamath/Trinity Region have firmly established federally protected rights to numerous natural resources. These general resource groupings represent culturally important Indian trust assets. A partial list of trust assets is presented in **Table 3.10-1**. While each tribe has its own uses for the species/resources presented, the table provides a general summary of what these uses are.

TABLE 3.10-1
PARTIAL LIST OF TRIBAL TRUST ASSETS

Asset	Primary Uses by Tribes
Fish[a]	
Fall chinook salmon	Subsistence, ceremonial, commercial
Spring chinook salmon	Subsistence, ceremonial, commercial
Summer steelhead	Subsistence, ceremonial, commercial
Fall steelhead	Subsistence, ceremonial, commercial
Winter steelhead	Subsistence, ceremonial, commercial
Coho salmon	Subsistence, ceremonial, commercial
Pacific lamprey	Subsistence, ceremonial, commercial
Sturgeon	Subsistence, ceremonial, commercial
Eulachon	Subsistence, ceremonial, commercial
Vegetation	
Willow shoots	Basketry, ceremonial
Cottonwood	Basketry
Wild grape	Basketry
Bulrush	Basketry
Hazel sticks	Basketry and weaving, ceremonial
Tules	Medicine
Spearmint	Medicine, subsistence
Blackberries	Subsistence
Water	Subsistence, ceremonial, commercial, medicine
Wildlife	
Bear	Subsistence
Bald eagle	Ceremonial

TABLE 3.10-1
PARTIAL LIST OF TRIBAL TRUST ASSETS

Asset	Primary Uses by Tribes
Blue heron	Ceremonial
Mallard	Ceremonial

[a] While many of the fish listed are not currently commercially harvested by the tribes of the region, historically, all these trust species were used for commercial purposes, and the tribes continue to have the right for commercial harvest.

Sources: Hoopa Valley, Karuk, and Yurok Tribes

Cultural Environment

Native uses of natural resources, and the cultural significance of those resources, developed over many centuries. Since time immemorial, native people have lived in the heavily forested drainages of the Klamath and Trinity Rivers and adjacent streams in Northwestern California. Over the centuries, they learned to efficiently utilize the natural bounty of their territories; hunting, fishing, and gathering were the foundation of their societies. Tribes in the area included: the Chilula, Hoopa Valley, Nongatl, Tsnungwe, and Whilkut speaking Athabascan languages; the Chimariko, Karuk, and Shasta speaking Hokan languages; the Wintun speaking a Penutian language, and the Wiyot and Yurok speaking Algonkian languages.

Some of these tribes, such as the Chilula, no longer exist. Others, including the Chimariko and Wintu, have never been officially recognized by the United States as a distinct and sovereign people. In fact, amongst the Indian peoples still present within the region, only the Hoopa Valley, Karuk, Klamath, and Yurok Tribes have received this recognition.

The aboriginal lands of the Hupa people are centered on the drainages of the Hoopa Valley of the Trinity River. The aboriginal lands of the Yurok were generally centered on the Klamath River drainage from the mouth of the river at the Pacific Ocean up to and including Slate Creek Drainage. Yurok ancestral territory also extends up the Trinity River to Tank Creek and includes the village of Oslegoits, six miles from the Trinity's confluence with the Klamath.

There have always been strong social, cultural, and economic ties among the tribes of the Klamath/Trinity Basin; ties based in large part on a shared reliance on the region's rivers and associated resources, particularly salmon. This reliance extends well beyond subsistence and commerce to the cultural and social fabric of their societies; as evidenced by their traditional, ceremonial, and spiritual ways of life that focus and center on the rivers and the fish, wildlife, and vegetation they support. For Indians of the Klamath/ Trinity Region, the interaction and identification with the natural environment so defines their cultures, lifestyles, and religions, that its degradation has had a profoundly devastating impact.

Local Setting

Salt Flat

Based on consultation with the Tribes and the BOR, the Salt Flat Bridge project study area contains Trust resources, including fish, vegetation and wildlife. While no specific use of this site has been identified, however the Trinity River provides a valuable corridor that connects these resources to the Hoopa Valley and Yurok Tribes.

Bucktail

Based on consultation with the Tribes and the BOR, the Salt Flat Bridge project study area contains Trust resources, including fish, vegetation and wildlife. While no specific use of this site has been identified, however the Trinity River provides a valuable corridor that connects these resources to the Hoopa Valley and Yurok Tribes.

Poker Bar

Based on consultation with the Tribes and the BOR, the Salt Flat Bridge project study area contains Trust resources, including fish, vegetation and wildlife. While no specific use of this site has been identified, however the Trinity River provides a valuable corridor that connects these resources to the Hoopa Valley and Yurok Tribes.

Biggers Road

Based on consultation with the Tribes and the BOR, the Salt Flat Bridge project study area contains Trust resources, including fish, vegetation and wildlife. While no specific use of this site has been identified, however the Trinity River provides a valuable corridor that connects these resources to the Hoopa Valley and Yurok Tribes.

3.10.2 Environmental Consequences/Impacts and Mitigation Measures

The purpose of this section is to evaluate the potential impacts of the alternatives on tribal trust assets, and the subsequent effects those impacts may have on the Indian tribes of the Klamath/Trinity Basin.

Methodology

While the proposed Project is aimed at improving the river's anadromous fisheries, an assessment of how bridge construction may actually impact the Indian tribes of the Klamath/ Trinity Region, and the federal government's trust responsibilities to those tribes, goes beyond numbers of fish. This is not to suggest that the goal of restoring the river's fishery is not relevant to tribal trust concerns, but that tribal values are multi-dimensional. Towards this end, the tribal trust impact analysis focuses on the potential affect of the proposed Project on the health of the Trinity River, as the river's overall health is a primary factor determining not only the availability of fish, but many trust assets including vegetation, water, and wildlife. Thus, increased numbers of Chinook salmon and Pacific lamprey, and the rejuvenation of other trust assets, represents an expected beneficial by-product of improved riverine health. The potential tribal trust impacts were not evaluated on a trust asset by trust asset basis.

Significance Criteria

No specific significance criteria were applied in the evaluation of potential tribal trust consequences, although any modification or change in the quantity or quality of downstream tribal trust assets was evaluated. Notably, nothing in the CEQA expressly requires lead agencies to consider projects' impacts on Tribal Trust Resources as a distinct category of impacts. Instead, with its focus on the physical environment, the CEQA requires agencies to focus on impacts to specific natural or environmental resources, some of which, such as fish and wildlife and water quality, might be indirectly related to Tribal Trust values.

Impacts and Mitigation Measures

Table 3.10-2 summarizes the potential tribal trust impacts resulting from construction of the proposed Project.

All Bridge Sites (Salt Flat, Bucktail, Poker Bar, and Biggers Road)

Impact 3.12-1: Implementation of the Trinity River Bridges Project may reduce the quantity or quality of a tribal trust asset. ***No Impact for No-Action Alternative, Less than Significant Impact for Project Alternatives (Proposed Action, Alternative 1, and Alternative 2).***

TABLE 3.10-2
SUMMARY OF TRIBAL TRUST IMPACTS FROM THE PROPOSED TRINITY RIVER BRIDGES PROJECT

Impact	Project Site	No-Action Alternative	Proposed Action	Alternative 1	Alternative 2
1. Implementation of the Trinity River Bridges Project may reduce the quantity or quality of a tribal trust asset.	Salt Flat	NI	LS	LS	LS
	Bucktail	NI	LS	LS	N/A
	Poker Bar	NI	LS	LS	N/A
	Biggers Road	NI	LS	LS	N/A

Notes:
LS = Less than Significant S = Significant NI = No Impact SU = Significant Unavoidable
N/A = Not Applicable

No-Action Alternative

Under the No-Action Alternative for the four project sites (Salt Flat, Bucktail, Poker Bar, Biggers Road), none of the proposed construction activities would occur and no impacts to a tribal trust asset would occur.

All Project Alternatives (Proposed Action; Alternative 1; Alternative 2) for All Bridge Sites

The Trinity River supports Tribal Trust resources throughout the project study area. Short-term impacts described in Section 3.3.3 (Geology, Fluvial Geomorphology and Soils); Section 3.5.3 (Water Quality); Section 3.6.3 (Fishery Resources); and Section 3.7.3 (Vegetation Wildlife and Wetlands) will occur in conjunction with project implementation. These impacts are expected to be short-term and outweighed by the overall benefits to these tribal trust resources through implementation of the Trinity River Restoration Program.

Mitigation Measures

All Project Alternatives (No-Action Alternative, Proposed Action; Alternative 1; Alternative 2)

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: *N/A*

SECTION 3.11

Cultural Resources

3.11 Cultural Resources

This section describes the prehistory, ethnography, and history of the Trinity River Region and reports the results of a cultural resources records search and cultural resources report prepared by the BOR. This information provides a general context for understanding the importance, origin, and types of cultural resources that are located in the project area. Specific tribal trust assets are evaluated in Section 3.10, Tribal Trust. The Trinity River Basin is the focus of this section because the proposed Project is not expected to affect cultural resources in out-of-basin or coastal areas.

3.11.1 Affected Environment/Environmental Setting

Regional Ethnography

Five periods of prehistory have been described for the region encompassing the project area (i.e., the northwest coastal region of California), the Paleo-Indian (10,000-6000 B.C.), Lower Archaic (6000-3000 B.C.), Middle Archaic (3000-1000 B.C.), Upper Archaic (1000 B.C.-A.D. 500), and Emergent Periods (A.D. 500-1800). These periods are characterized by their "pattern," a term that refers to a culture's technology as revealed by the type and sophistication of its tools. These tools include points, which are made of stone or bone and used as weapons for hunting or fishing, and stone metates and manos used to grind seeds, and mortars and pestles used to grind acorns.

The Chimariko, Hupa, Tsnungwe, Wintu, and Yurok Indians inhabitated the Trinity Reservoir/Trinity River region (to the Klamath River confluence) at the time of Euro-American contact (refer to Section 3.10, Tribal Trust).

Chimariko

The Chimariko lived in a 20-mile-long reach of the Trinity River extending from approximately Big Bar to the confluence with the South Fork. Although the Chimariko language is now extinct, early ethnographers recorded some words, and the language is thought to be of Hokan stock. Sources for ethnographic information about the Chimariko include Driver (1939), Powers (1976), Dixon (1910), Harrington and Merriam (1967), and Kroeber (1925). These sources are summarized by Silver (1978), and that summary provides the basis for the following discussion.

The Chimariko lived in an area with abundant natural resources. The staples of their diet were salmon and acorns; but deer, elk, bear, pine nuts, seeds, berries, roots, and small mammals were also important food sources. Little is known of Chimariko social organization because their culture was destroyed at an early date. The largest social unit was the village. Each village had a headman, which was a hereditary, lifelong position passed through the male line. Status in Chimariko society was attained through wealth or a combination of wealth and birth. Only fragmentary data on Chimariko religion and myths exist.

Hupa

The Hupa inhabited the area surrounding the lower reaches of the Trinity River from an area near Salyer to within six miles of the confluence with the Klamath River. Linguistically, Hupa is considered a dialect of the Hupa language, Athapaskan family, Na-Dene stock. The Hupa relied heavily on salmon and acorns as food sources but also used other fish, nuts, seeds, roots, deer, elk, rodents, and fowl. No insects, amphibians, or reptiles (except turtles) were eaten.

As with many native groups of the California northwest, the Hupa had no formal chief or ruling council, but were ruled by individuals with prestige based on wealth. Wealth was defined in terms of the possession of nonsubsistence goods (usually imported items) gained by such means as trade, gambling, and indemnities. The highest political entity was the village. The Hupa excelled in woodworking and basket making (twined basketry). They also made plank houses and sweathouses, wooden chests, bowls, seats, and other objects. Wooden platforms, weirs, or harpoons were used for fishing. The Hupa used redwood canoes that they procured in trading with the Yurok.

Wintu

At the time of Euro-American contact, most of the western side of the Sacramento Valley, north of about Suisun Bay was inhabited by Wintun-speaking people. Early in the anthropological study of the region, Powers (1976) had recognized a linguistic and cultural distinction between the southern membership of this large group (i.e., the Patwin) and the people occupying the northern half of the western valley. Subsequent linguistic analyses resulted in the present division of Wintuan into a southern Patwin group, a Central (Nomlaki) group, and a northern (Wintu) Wintuan stock. Clearly, however, the central and northern Wintus were very closely related and shared numerous cultural traits and attributes.

The Wintu were divided into nine subgroups distributed from Cottonwood Creek in the south, northward through Shasta County and into portions of Trinity and Siskiyou counties, and westward into portions of southern Trinity and northern Tehama counties. Within the project area, the Wintu inhabited all areas east of approximately Junction City, including the area of what is now Trinity Reservoir. Wintu subsistence was based on three main staples: deer, acorns, and salmon. All three were abundant along the Sacramento and Trinity Rivers and their primary tributaries, although acorns and deer were available only seasonally. These staples were supplemented with an immense array of less abundant resources, some seasonally available and some procurable year round.

The available ethnographic information documents a complex pattern of land use, settlement, and subsistence orientation. The salmon runs, the locations of seasonally available big game (especially deer), and the distribution of acorn-yielding oak trees required major forays from the home base because all three were concentrated in different areas. Moreover, long and arduous trips were often required to collect non-native raw materials, such as obsidian and certain other utilitarian materials.

Yurok

The Yurok inhabited California's northwestern coastline from Little River to Damnation Creek, although their ancestral territory included the Klamath River corridor from the estuary upstream to Slate Creek, upstream of the Trinity River. Yurok territory extended six miles up the Trinity River. The Yurok language (and the neighboring Wiyot language) is affiliated with the Algonquin linguistic stock. Algonquin languages are primarily spoken by tribes residing in the Great Lakes and New England areas. While the Yurok language is still spoken fluently by several dozen Yurok people, a tribal language program is in place to increase the fluency of its tribal members. Traditional subsistence animal species include salmon, ocean fish, sturgeon, sea lion, whale, elk, deer, and duck. Acorns, berries, bulbs, and grass seed are staple plant foods.

Yurok life is defined by extended families affiliated with villages and represented by head spokespersons. Ceremonial wealth and rights to subsistence resource areas determine familial standing within Yurok social structure. Yurok are recognized for their highly stylized art forms and their skills in making redwood canoes, weaving fine

baskets, hunting, and especially, riverine salmon fishing. The ancient traditions are continued through contemporary times.

History

Regional History

In 1828, Jedediah Smith and his party of explorers were apparently the first white men to visit the Trinity River Basin (earlier excursions by Europeans had been made to the coast and Klamath Basin). At first, trappers used the area extensively, but by the late 1840s gold mining was a major activity along the Trinity River. State Route 299 follows the trail used by trappers and gold miners traveling from Redding to Weaverville on their way to the Trinity River gold fields. Trinity County was one of the original 27 counties created in 1850 and owes its name to Major Reading, who crossed the Trinity Mountains in 1849, and was the man who discovered gold in the County in 1848. Weaverville became a center of gold mining activity after 1849, but numerous mining camps and settlements were established all along the river. Many of the earliest miners were German immigrants, but Chinese immigrants moved into the area in large numbers beginning in 1853. Much of the Trinity River continued to be used for mining throughout the first half of the 20th century. Large-scale dragline and bucket dredging operations occurred along many stretches of the Trinity River and a number of its tributaries beginning in 1939 and, along with other mining activities, continued into the 1960s. Logging has occurred throughout the historic period.

Local History

Lewiston has been designated a National Historic Gold Mining Town. Buildings date back to the gold discovery days of the 1850s. Lewiston served as headquarters for government and contractor personnel during construction of the Trinity and Lewiston Dams in the 1950s. Perhaps the largest decrease in population following construction of the Dams occurred in this community because of its proximity to the Dam site, and because it served as the major housing area for a large number of the contractors personnel.

Douglas City was known as "ground zero" for the major gold discovery by Major B.P. Reading in 1848. Douglas City was established in 1850 with a store, blacksmith shop, hotel, and trading post. In 1850 the community had a population of 1200 persons. The town's name was changed from Kanaka Bar to Douglas City to reflect the national election period in which Steven Douglas and Abe Lincoln participated in their historic debates.

Salt Flat Bridge

This privately-owned bridge was reportedly constructed in the early 1980s to replace a bridge that was washed out. The existing piers are assumed to have been constructed in 1984 when the railroad flatcar bridge was installed.

Bucktail Bridge

This County-owned bridge was built in 1984 by Trinity County. This site was used for bridges as part of Browns Mountain Road. Large floods washed out several previous bridges.

Poker Bar Bridges

There is evidence that the left channel bridge was in place before the formation of the Poker Bar subdivision. Around 1967, Reo Stott installed a short-span bridge, across the right channel, to access and develop the Poker Bar subdivision. A new left channel bridge was later funded by the Poker Bar Property Owners Association, and built by

Ken and John Scott in 1982. Both bridges were strengthened and refurbished with piers, as needed, in 1985 by Dan Wardell.

Biggers Road Bridge

According to Mr. Richard Treadwell, the railroad flatcar bridge was constructed in the early 1970s to replace an existing log-span bridge.

Present Environment

Regional Setting

The elevation within the project area ranges from 1650 to 1750 feet msl. The Trinity River flows in a southwesterly direction through the project area. Dominant vegetation communities within the region include Klamath mixed conifer, montane hardwood conifer, montane riparian, and riverine (Mayer and Laudenslayer 1988). Land use within the Trinity River Basin varies greatly due to the differences in population, economy, and environment. Land use is greatly influenced by the large amount of public and Indian lands, much of which is used for timber production and other natural resource related uses. Private uses are generally limited to scattered residential development.

Local Setting

Salt Flat

Salt Flat Bridge, on the northern edge of Salt Flat, is approximately 1780 feet above msl. The Trinity River flows in a southerly direction under the bridge. Three plant community types occur within the Salt Flat Bridge Area of Potential Effect (APE) (i.e., study area): montane - hardwood conifer, montane riparian, and riverine. Specific plant species observed included ponderosa pine, Douglas-fir, California black oak, alder, and willow. Rural residential development that occurs just outside the APE to the west and east is almost completely obscured by natural vegetation (hardwood and conifer).

Bucktail

Bucktail Bridge, due east of Bucktail, is approximately 1750 feet above msl. The Trinity River flows in a southerly direction under the bridge. Three plant community types occur within the Bucktail Bridge project APE: montane - hardwood conifer, montane riparian, and riverine. Specific plant species observed included ponderosa pine, Douglas-fir, alder, willow, blackberry, and birch-leaf mountain mahogany. The clearing of land for rural resident development along the relatively flat areas bordering the river has resulted in fragmented vegetation communities. Access points to the river for recreational uses exist in south and northeast portions of the study area.

Poker Bar

Poker Bar Bridge, on the eastern edge of Poker Bar, is approximately 1710 feet above msl. The Trinity River flows southwesterly under the bridge and three plant community types occur in the project APE: montane hardwood – conifer, montane riparian, and riverine. Specific plant species observed included white alder, goodings willow, sandbar willow, California sycamore, and cottonwood. The study area is surrounded by rural residential development.

Biggers Road

Biggers Road Bridge, upstream on Trinity River approximately one-third of a mile above McIntyre Junction, is approximately 1690 feet above msl. The Trinity River flows southeasterly under the bridge. Four plant community types occur within the Biggers Road Bridge project APE: Klamath mixed conifer, montane hardwood - conifer, montane riparian, and riverine. Specific plant species observed included Douglas-fir, ponderosa pine, California black oak, canyon live oak, gray pine, white alder and sandbar willow. The study area is surrounded by Klamath mixed-conifer forest and scattered rural residential development.

Area of Potential Effects

The APE for the four bridge sites was developed in coordination with BOR planners and engineers, per the Programmatic Agreement (PA) among the BOR, USFWS, BLM, HVT, California State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (ACHP) regarding implementation of the Trinity River Mainstem Fishery Restoration (USFWS et al. 2002b), included as **Appendix O**. The APE was delineated in accordance with the National Historic Preservation Act (NHPA). The APE encompasses the limits of the proposed action, including the area surrounding the existing bridge roadway approaches. Due to timing of field investigations, the APE was developed prior to the ESL for the proposed Project. By design, the APE was general in nature and encompassed a larger area than the ESL.

Archaeological and Historical Information Sources

A records search for the APE was conducted according to the PA. No cultural resources were identified within the project APE.

Field Surveys

Cultural Resources & Historical Properties

A systematic survey of transects (five to 10 meters apart), within the potential construction limits at each bridge site, was conducted by BOR archaeologists (Jim West and Patrick Welch) for cultural resources and historic buildings on November 28 and 29, 2000. In addition, each bridge site (including the structure) was examined and photographed. No cultural resources or buildings or structures were located within the project APE.

Native American Consultation

No Native American cultural resources were identified within the project APE. As discussed previously, this analysis addresses only those tribes of the Klamath/Trinity Region that are officially recognized by the United States (Pevar 1992), consistent with DOI policy. These tribes include the Hoopa Valley, Karuk, Klamath, and Yurok. Local unrecognized tribes include the Nor-Rel-Muk Nation (Wintu) (Hayfork) and the Tsnungwe Tribe (Salyer/Burnt Ranch). The Nor-Rel-Muk Nation has an MOU with the BLM that relates to a recognized cultural feature in the vicinity of Salt Flat (**Appendix Q**).

3.11.2 REGULATORY SETTING

Federal

Section 106 of the National Historic Preservation Act

Section 106 of the NHPA requires federal agencies to evaluate the effects of federal undertakings on historical, archaeological, and cultural resources. Agencies are required, within the vicinity of proposed projects, to identify historical or archeological properties, including properties on the NHPA, and those that the agency and the SHPO agree are eligible for listing in the national register. If the federal project is determined to have an adverse effect on National Register properties or those eligible for listing in the National Register, the agency is required to consult with the SHPO and the ACHP to develop alternatives or mitigation measures to allow the project to proceed.

State

Office of Historic Preservation; California Environmental Quality Act

California Register of Historical Resources

Under CEQA, public agencies must consider the effects of their actions on both "historical resources" and "unique archaeological resources." Pursuant to *California Public Resources Code* section 21084.1, a "project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." Section 21083.2 requires agencies to determine whether proposed projects would have effects on "unique archaeological resources."

"Historical resource" is a term of art with a defined statutory meaning. (See *Cal. Pub. Resources Code*, § 21084.1; *CEQA Guidelines* § 15064.5, subds. (a), (b).) The term embraces any resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR). The CRHR includes resources listed in or formally determined eligible for listing in the National Register of Historic Places (NRHP), as well as some California State Landmarks and Points of Historical Interest.

Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be "historical resources" for purposes of CEQA unless a preponderance of evidence indicates otherwise (*Pub. Resources Code*, § 5024.1; *Cal. Code Regs.*, tit. 14, § 4850). Unless a resource listed in a survey has been demolished, lost substantial integrity, or there is a preponderance of evidence indicating that it is otherwise not eligible for listing, a lead agency should consider the resource to be potentially eligible for the CRHR.

In addition to assessing whether historical resources potentially impacted by a proposed project are listed or have been identified in a survey process, lead agencies have a responsibility to evaluate them against the CRHR criteria prior to making a finding as to a proposed project's impacts to historical resources (*Pub. Resources Code*, § 21084.1; *CEQA Guidelines*, § 15064.5, subd. (a)(3)). In general, an historical resource, under this approach, is defined as any object, building, structure, site, area, place, record, or manuscript that

(a) is historically or archeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political or cultural annals of California; and

(b) meets any of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2. Is associated with the lives of persons important in our past;

3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4. Has yielded, or may be likely to yield, information important in prehistory or history. (*CEQA Guidelines*, § 15064.5, subd. (a)(3))

Additionally, *California Public Resources Code* 5024 requires consultation with the Office of Historic Preservation (OHP) when a project may impact historical resources located on State-owned land.

As noted above, CEQA also requires lead agencies to consider whether projects will impact "unique archaeological resources." *Public Resources Code* section 21083.2, subdivision (g), states that "'unique archaeological resource' means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person." (*Public. Resources Code*, § 21083.2, subd. [g])

Local

Trinity County General Plan Goals and Objectives

The Trinity County General Plan contains goals and policies designed to guide the future physical development of the County, based on current conditions (County 2001). The General Plan contains all the state-required elements, including community development and design, transportation, natural resources, health and safety, noise, housing, recreation, economic development, public facilities and services, and air quality. The following goals and policies, relative to cultural resource issues associated with the project study area, were taken from the applicable elements of the General Plan (County 2001). This includes the Lewiston Community Plan (County 1986) and the Douglas City Plan (County 1987).

Lewiston Community Plan Goals and Objectives

This plan includes the area centered on the Trinity River from Lewiston Lake to slightly downstream of the confluence of Grass Valley Creek and the Trinity River. Project sites within the planning area include Salt Flat and Bucktail.

Community Design

Goal: To encourage the preservation of historical structures within the Plan Area.

- Provide for flexibility in land development standards so that retention and rehabilitation of historical structures is encouraged.

Douglas City Community Plan

This plan includes the area centered on the Trinity River from Grass Valley Creek to slightly downstream of Steiner Flat. Project sites within the planning area include Poker Bar and Biggers Road bridge sites.

Community Design

Goal: To encourage the preservation of historical structures within the Plan Area.

- Encourage Federal and State land managers to retain existing historical buildings, or as a last resort, provide for relocation of such structures located on State or Federal lands.

Project Consistency with the Trinity County General Plan and Community Plans

As described in Chapter 1, Introduction, the proposed Project would:

- Provide safe and reasonable year-round access to parcels of land served by the Salt Flat, Bucktail, Poker Bar and Biggers Road bridges across the Trinity River.
- Allow dam operators maximum flexibility to provide instream flow releases from Lewiston Dam adequate to meet the fishery and geomorphic flow needs for the mainstem Trinity River and to fulfill the Trinity River TMDL for sediment and restore the coldwater fishery beneficial use.

The following project objectives apply to the project's lead/responsible agencies for CEQA purposes:

- Minimize the threat to public safety and potential damage to property posed by the existing high likelihood of flooding
- Provide maximum flexibility for implementing a variety of potential Trinity River fishery flow alternatives, as well as other flow alternatives outside the ROD such as increasing dam releases during periods of high downstream tributary inflows
- Allow for high-efficiency sediment transport in the Trinity River to maximize the amount of sediment transported on a per acre-foot basis so that Trinity River can be removed from California's Clean Water Act Section 303(d) Impaired Waterbodies List, while minimizing the total amount of water necessary to transport sediment through the river system
- Provide maximum flexibility for operations of the TRD during periods of high runoff and flooding which could result in increased water in storage available for multiple beneficial uses (i.e., fisheries, recreation, water supply, water quality and power production)
- Provide alternative access on a short-term basis during project implementation
- Recovery of fish and wildlife resources that are listed as threatened and endangered

The following objectives apply to the projects responsible and trustee agencies, including the HVT, NCRWQCB, the SLC, the CDFG, and the SWRCB:

- Comply with the Water Code to ensure the highest reasonable quality of waters of the state and allocate those waters to achieve the optimum balance of beneficial uses

- Protect the public trust assets of the Trinity River watershed
- Protect, conserve, restore, and manage fish, wildlife, and native plant resources
- Comply with the Water Quality Control Plan for the Hoopa Valley Indian Reservation to preserve and enhance water quality on the Reservation, and to protect the beneficial uses of water.

These project objectives are consistent with the applicable general plan goals and policies summarized above.

3.11.3 Environmental Consequences/Impacts and Mitigation Measures

Methodology

An APE for the cultural resource evaluation was established by the BOR. A field survey of the APE to determine if any unknown cultural resources are present within the project study area was performed by BOR staff archeologists on November, 28, 2000. An evaluation of the four bridge structures was conducted by BOR to determine their eligibility for listing as a historic property by the NRHP.

Significance Criteria

Activities proposed to occur at each of the four project locations were evaluated to determine how cultural resources within the Trinity River Basin might be impacted. Impacts on archaeological resources are considered significant if implementation of the proposed project would potentially disturb unique archaeological resources.

For historical resources, the lead agencies have reviewed both the federal NHPA and CEQA in order to determine thresholds for significance. As noted above, CEQA provides that a project may cause a significant environmental effect where the project "may cause a *substantial adverse change in the significance of an historical resource*" (*Pub. Resources Code*, § 21084.1 (emphasis added)). *CEQA Guidelines* section 15064.5 defines a "substantial adverse change in the significance of an historical resource" to mean "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be *materially impaired*" (*CEQA Guidelines*, § 15064.5, subd. (b)(1) (emphasis added)).

CEQA Guidelines, section 15064.5, subdivision (b)(2), defines "materially impaired" for purposes of the definition of "substantial adverse change . . ." as follows:

- "The significance of an historical resource is materially impaired when a project:

  (A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the CRHR; or

  (B) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the *Public Resources Code* or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the *Public Resources Code*, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

  (C) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a lead agency for purposes of CEQA." (*CEQA Guidelines*, § 15064.5, subd. (b)(2))

With these definitions in mind, the lead agencies herein consider impacts on historical resources eligible for the NRHP or CRHR are to be significant if the project would alter their eligibility to the NRHP or CRHR by

- physically destroying or materially altering the characteristics of the historical resource that convey its historical significance and justify its eligibility for listing in the NRHP or CRHR;
- introducing visual, audible, or atmospheric elements out of character with the historical resource and its setting in such a way as to demolish or materially alter the characteristics that convey its historical significance and justify its eligibility for listing in the NRHP or CRHR;
- causing the historical resource to be subject to neglect to such a degree that the characteristics that convey its historical significance and justify its eligibility for listing in the NRHP or CRHR will be materially impaired;
- resulting in the historical resource being transferred, leased, or sold, with the probability that the characteristics that convey its historical significance and justify its eligibility for listing in the NRHP or CRHR will be materially impaired.

In addition, based on *CEQA Guidelines* section 15064.5 and Appendix G of the *CEQA Guidelines,* the project would have significant effects if it would

- cause a substantial adverse change in the significance of an historical resource as defined in Section 15064.5;
- cause a substantial adverse change in the significance of an unique archaeological resource pursuant to Section 15064.5;
- directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- disturb any human remains, including those interred outside of formal cemeteries.

Impacts and Mitigation Measures

Table 3.11-1 summarizes the potential cultural resource impacts resulting from construction and operation of the proposed Project.

TABLE 3.11-1
SUMMARY OF CULTURAL RESOURCE IMPACTS FROM THE PROPOSED TRINITY RIVER BRIDGES PROJECT

Impact	Project Site	No-Action Alternative	Proposed Action	Alternative 1	Alternative 2
1. Implementation of the proposed Trinity River Bridges Project could potentially result in disturbance of undiscovered prehistoric or historic resources.	Salt Flat	NI	S	S	S
	Bucktail	NI	S	S	N/A
	Poker Bar	NI	S	S	N/A
	Biggers Road	NI	S	S	N/A

Notes:

LS = Less than Significant S = Significant NI = No Impact SU = Significant Unavoidable
N/A = Not Applicable

Salt Flat Bridge

Impact 3.11-1: Implementation of the proposed Project could potentially result in disturbance of undiscovered prehistoric or historic resources. ***No Impact for No-Action Alternative; Significant Impact for Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, there would be no disturbance to potentially significant historic sites or structures because a new bridge would not be constructed at the Salt Flat site. No impacts to cultural resources would occur.

Proposed Action (Replacement Downstream, Private Ownership)

The records search conducted for this project indicates the presence of historic and prehistoric cultural resource sites along the Trinity River. No cultural resource sites were identified within the Salt Flat APE; any unrecorded sites are assumed to have been previously inundated and substantially damaged. Potential archaeological resources have not been observed or recorded within the Salt Flat APE. However, buried archaeological resources that have not been previously recorded may be uncovered during construction. Due to the proximity to the Trinity River, unrecorded prehistoric resources associated with habitation by Native Americans may be present. Ground-disturbing activities associated with construction could disrupt or adversely affect unknown subsurface archaeological resources. This would be a significant impact.

Alternative 1 (Replacement Upstream, Private Ownership)

Similar to the Proposed Action, construction activities associated with Alternative 1 could result uncovering of previously unrecorded archaeological resources.

Alternative 2 (Replacement Upstream, Public Ownership)

Similar to the Proposed Action and Alternative 1, construction activities associated with Alternative 2 could result uncovering of previously unrecorded archaeological resources. Long-term operation of a new bridge under public ownership, however, may result in increased public access which could potentially result in disturbance of prehistoric or historic resources located within and adjacent to the project ESL (i.e., recognized Nor-Rel-Muk Nation feature located upstream of the Salt Flat bridge).

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1; Alternative 2

SF-1a: Prior to initiation of construction or ground-disturbing activities, all construction workers shall be alerted to the possibility of buried cultural remains. This would include prehistoric and/or historic resources. Personnel shall be instructed that upon discovery of buried cultural materials, work within 50 feet of the find shall be halted and a qualified archaeologist consulted. Once the find has been identified, then the BOR will make the necessary plans for treatment of the finds(s) and for the evaluation and mitigation of impacts if the find(s) are found to be significant.

SF-1b: If buried human remains are encountered during construction, work in that area must be halted, and the Trinity County Coroner's Office ([530] 623-4154) shall be immediately contacted. If the remains are determined to be of Native American origin, then the Native American Heritage Commission (NAHC) will be notified within 24 hours of determination, as required by *Public Resources Code* 5097. The NAHC will notify designated Most Likely Descendants, which will provide recommendations for the treatment of the remains within 24 hours. The NAHC will mediate any disputes regarding treatment of remains.

If the find is determined to be an historical resource or an unique archaeological resource, as defined by CEQA, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or other appropriate mitigation shall be made available. Work may continue on other parts of the project site while historical or unique archaeological resource mitigation takes place.

Significance after Mitigation: *Less than Significant.*

Bucktail Bridge

Impact 3.11-1: Implementation of the proposed Project could potentially result in disturbance of undiscovered prehistoric or historic resources. ***No Impact for No-Action Alternative; Significant Impact for Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, there would be no disturbance to potentially significant historic sites or structures because the west approach roadway and the existing culvert will not be replaced at the Bucktail site. No impacts to cultural resources would occur.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

The records search conducted for this project indicates the presence of historic and prehistoric cultural resource sites along the Trinity River. No cultural resource sites were identified within the Bucktail APE; any unrecorded sites are assumed to have been previously inundated and substantially damaged. Potential archaeological resources have not been observed or recorded within the Bucktail APE. However, buried archaeological resources that have not been previously recorded may be uncovered during construction. Due to the proximity to the Trinity River, unrecorded prehistoric resources associated with habitation by Native Americans may be present. Ground-disturbing activities associated with construction could disrupt or adversely affect unknown subsurface archaeological resources. This would be a significant impact.

Alternative 1(Raise Existing Upstream Levee)

Similar to the Proposed Action, construction activities associated with Alternative 1 could result uncovering of previously unrecorded archaeological resources.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1

BT-1a: Prior to initiation of construction or ground-disturbing activities, all construction workers shall be alerted to the possibility of buried cultural remains. This would include prehistoric and/or historic resources. Personnel shall be instructed that upon discovery of buried cultural materials, work within 50 feet of the find shall be halted and a qualified archaeologist consulted. Once the find has been identified, then the BOR will make the necessary plans for treatment of the finds(s) and for the evaluation and mitigation of impacts if the find(s) are found to be significant.

BT-1b: If buried human remains are encountered during construction, work in that area must be halted, and the Trinity County Coroner's Office ([530] 623-4154) shall be immediately contacted. If the remains are determined to be of Native American origin, then the NAHC will be notified within 24 hours of determination, as required by *Public Resources Code* 5097. The NAHC will notify designated Most Likely Descendants, which will provide recommendations for the treatment of the remains within 24 hours. The NAHC will mediate any disputes regarding treatment of remains.

If the find is determined to be an historical resource or an unique archaeological resource, as defined by CEQA, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or other appropriate mitigation shall be made available. Work may continue on other parts of the project site while historical or unique archaeological resource mitigation takes place.

Significance after Mitigation: *Less than Significant.*

Poker Bar Bridges

Impact 3.11-1: Implementation of the proposed Project could potentially result in disturbance of undiscovered prehistoric or historic resources. ***No Impact for No-Action Alternative; Significant Impact for Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, there would be no disturbance to potentially significant historic sites or structures because the new bridges will not be constructed at the Poker Bar site. No impacts to cultural resources would occur.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

The records search conducted for this project indicates the presence of historic and prehistoric cultural resource sites along the Trinity River. No cultural resource sites were identified within the Poker Bar APE; any unrecorded sites are assumed to have been previously inundated and substantially damaged. Potential archaeological resources have not been observed or recorded within the Poker Bar APE. However, buried archaeological resources that have not been previously recorded may be uncovered during construction. Due to the proximity to the Trinity River, unrecorded prehistoric resources associated with habitation by Native Americans may be present. Ground-disturbing activities associated with construction could disrupt or adversely affect unknown subsurface archaeological resources. This would be a significant impact.

Alternative 1(Replacement Downstream with Two Single-Span Structures)

Disturbance to potentially significant historic sites or structures associated with Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1

PB-1a: Prior to initiation of construction or ground-disturbing activities, all construction workers shall be alerted to the possibility of buried cultural remains. This would include prehistoric and/or historic resources. Personnel shall be instructed that upon discovery of buried cultural materials, work within 50 feet of the find shall be halted and a qualified archaeologist consulted. Once the find has been identified, then the BOR will make the necessary plans for treatment of the finds(s) and for the evaluation and mitigation of impacts if the find(s) are found to be significant.

PB-1b: If buried human remains are encountered during construction, work in that area must be halted, and the Trinity County Coroner's Office ([530] 623-4154) shall be immediately contacted. If the remains are determined to be of Native American origin, then the NAHC will be notified within 24 hours of determination, as required by *Public Resources Code* 5097. The NAHC will notify designated Most Likely Descendants, which will provide recommendations for the treatment of the remains within 24 hours. The NAHC will mediate any disputes regarding treatment of remains.

If the find is determined to be an historical resource or an unique archaeological resource, as defined by CEQA, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or other appropriate mitigation shall be made available. Work may continue on other parts of the project site while historical or unique archaeological resource mitigation takes place.

Significance after Mitigation: *Less than Significant.*

Biggers Road Bridge

Impact 3.11-1: Implementation of the proposed Project could potentially result in disturbance of undiscovered prehistoric or historic resources. ***No Impact for No-Action Alternative; Significant Impact for Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, there would be no disturbance to potentially significant historic sites or structures because the new bridge will not be constructed at the Biggers Road site. No impacts to cultural resources would occur.

Proposed Action (Replacement Upstream)

The records search conducted for this project indicates the presence of historic and prehistoric cultural resource sites along the Trinity River. No cultural resource sites were identified within the Biggers Road APE; any unrecorded sites are assumed to have been previously inundated and substantially damaged. Potential archaeological resources have not been observed or recorded within the Biggers Road APE. However, buried archaeological resources that have not been previously recorded may be uncovered during construction. Due to the proximity to the Trinity River, unrecorded prehistoric resources associated with habitation by Native Americans may be present. Ground-disturbing activities associated with construction could disrupt or adversely affect unknown subsurface archaeological resources. This would be a significant impact.

Alternative 1(Replacement Upstream, Raise Steel Bridge Road)

Disturbance to potentially significant historic sites or structures associated with Alternative 1 would be similar to and potentially greater than the Proposed Action because under Alternative 1 Steel Bridge Road will be raised and a retaining wall constructed adjacent to the Trinity River. No cultural resource sites or potential archaeological resources have been observed or recorded within the Biggers Road APE; any unrecorded sites are assumed to have been previously inundated and substantially damaged. However, buried archaeological resources that have not been previously recorded may be uncovered during construction. Due to the proximity to the Trinity River, unrecorded prehistoric resources associated with habitation by Native Americans may be present. Ground-disturbing activities associated with construction could disrupt or adversely affect unknown subsurface archaeological resources. This would be a significant impact.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1

BR-1a: Prior to initiation of construction or ground-disturbing activities, all construction workers shall be alerted to the possibility of buried cultural remains. This would include prehistoric and/or historic resources. Personnel shall be instructed that upon discovery of buried cultural materials, work within 50 feet of the find shall be halted and a qualified archaeologist consulted. Once the find has been identified, then the BOR will make the necessary plans for treatment of the finds(s) and for the evaluation and mitigation of impacts if the find(s) are found to be significant.

BR-1b: If buried human remains are encountered during construction, work in that area must be halted, and the Trinity County Coroner's Office ([530] 623-4154) shall be immediately contacted. If the remains are determined to be of Native American origin, then the NAHC will be notified within 24 hours of determination, as required by *Public Resources Code* 5097. The NAHC will notify designated Most Likely Descendants, which will provide recommendations for the treatment of the remains within 24 hours. The NAHC will mediate any disputes regarding treatment of remains.

If the find is determined to be an historical resource or an unique archaeological resource, as defined by CEQA, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or other appropriate mitigation shall be made available. Work may continue on other parts of the project site while historical or unique archaeological resource mitigation takes place.

Significance after Mitigation: *Less than Significant.*

SECTION 3.12

Air Quality

3.12 Air Quality

This section evaluates the air quality effects associated with construction and operation of the proposed Project. Projected construction air emissions are measured against standards provided by the North Coast Unified Air Quality Management District (NCUAQMD).

3.12.1 Affected Environment/Environmental Setting

Regional Setting

Climate and Topography

According to the *Soil Survey of Trinity County, California, Weaverville Area* (USDA 1998), Trinity County has a climate characterized by hot, dry summers and moderate winters. Average summer high temperatures range from 89.7 °F to 96.7 °F while winter lows range from 26.4 °F to 32.4 °F with average snowfalls ranging from 5.2 inches to 41.8 inches. These readings are from the five weather stations located throughout the County. In the higher wilderness areas, which reach elevations of over 9,000 feet, the temperatures are much lower and the snowfall is much greater (CED 2001). The average annual precipitation for Trinity County ranges from 30 inches in the lower elevations to 70 inches in the higher elevations. Most precipitation results from major storms from the Pacific Ocean; however, a few short thunderstorms during summer occur during most years. **Table 3.12-1** provides a summary of key historic weather parameters for the weather station at the Trinity River Salmon and Steelhead Hatchery (TRSSH), a point approximately four miles upstream of the Salt Flat Bridge site.

TABLE 3.12-1
CLIMATOLOGICAL DATA FOR TRINITY COUNTY

Weather Parameter	Measurement
Average Annual Temperature	54.6 °F
Average High Temperature in January	48.0 °F
Average Low Temperature in January	31.8 °F
Average High temperature in July	91.8 °F
Average Low Temperature in July	52.1 °F
Highest Recorded Temperature	113 °F
Lowest Recorded Temperature	4 °F
Average Annual Precipitation	32.6 inches
Average Days of Precipitation Per Year	90
Mean Annual Snowfall	4.54 inches
Highest Recorded Snowfall	20 inches

Source: Western Regional Climate Center (2002)

Within Trinity County, the local airflow is strongly controlled by the deeply dissected mountains. The higher mountain ridges receive precipitation as snow, and hold most of it until late spring. The lower elevations receive precipitation mostly as rain, with occasional snow during most winters. Dense morning fog typically occurs in the Trinity River basin during the winter, and occasionally throughout the rest of the year. The project region experiences

temperature inversions[1], primarily from late fall through early spring, when the daylight hours are shorter and the strength of the sun is weaker. These inversions, which take place at night when the air layer near the ground surface is cooler, can prevent the dispersions of pollutants in the atmosphere.

Air Quality Management

Air quality along the Trinity River corridor is influenced by a number of factors including stationary sources such as residential wood heating, non-stationary sources such as motor vehicle exhaust, forest management (prescribed fire) and the meteorology of a given area. The NCUAQMD has defined the following general source categories for air pollution:

- Industrial: Pulp mill, sawmills, power plants, other heavy industry
- Commercial: Gas stations, body shops, restaurants, dry cleaners, etc.
- Residential: Home heating, backyard burning, paint and solvent use, etc.
- Mobile: Cars, planes, trains, and other transportation sources
- Agricultural: Forest management burning, field burning, herbicide use, etc. (NCUAQMD 1998a)

Federal Requirements

The 1977 federal Clean Air Act (CAA) required the EPA to identify National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. NAAQS have been established for the following "criteria"[2] air pollutants: ozone (O_3); carbon monoxide (CO); nitrogen dioxide (NO_2); sulfur dioxide (SO_2); suspended particulate matter (PM_{10} and $PM_{2.5}$); and lead (Pb). **Table 3.12-2** summarizes both federal and state ambient standards for the criteria pollutants.

TABLE 3.12-2
FEDERAL AND STATE CRITERIA POLLUTANT AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	Federal Standard	State Standard
Ozone	1-Hour 8-Hour	0.12 ppm 0.08 ppm	0.09 ppm ------
Carbon Monoxide	1-Hour 8-Hour	35 ppm 9 ppm	20 ppm 9 ppm
Nitrogen Dioxide	1-Hour Annual	-- 0.053 ppm	0.25 ppm --
Sulfur Dioxide	1-Hour 24-Hour Annual	-- 0.14 ppm 0.03 ppm	0.25 ppm 0.04 ppm --
Fine Particulate Matter ($PM_{2.5}$)	24-Hour Annual Arithmetic Mean	65 $\mu g/m^3$ 15 $\mu g/m^3$	-- --
Respirable Particulate Matter (PM_{10})	24-Hour Annual Arithmetic Mean Annual Geometric Mean	150 $\mu g/m^3$ 50 $\mu g/m^3$ --	50 $\mu g/m^3$ -- 30 $\mu g/m^3$
Lead	30-day Average Calendar Quarter	-- 1.5 $\mu g/m^3$	1.5 $\mu g/m^3$ --

Source: EPA; CARB

Notes: ppm = parts per million; µg/m3 = micrograms per cubic meter

[1] Inversions occur when warm air overlies cooler air under normal atmospheric conditions.
[2] Termed "criteria" pollutants because EPA publishes criteria documents to justify the choice of standards.

Pursuant to the 1990 CAA Amendments, the EPA has classified Air Basins (or portions thereof) as either "attainment" or "non-attainment" for each criteria air pollutant, based on whether or not the NAAQS have been achieved. The Trinity River Basin lies within the North Coast Air Basin (NCAB), which is under the jurisdiction of the NCUAQMD (**Figure 3.12-1**). The air quality of the Trinity River Basin meets the NAAQS for all criteria pollutants.

State Requirements

The California Air Resources Control Board (CARB), California's state air quality management agency, regulates mobile source emissions and oversees the activities of County Air Pollution Control Districts and regional Air Quality Management Districts. The CARB regulates local air quality indirectly by establishing state ambient air quality standards and vehicle emission standards by conducting research activities, and through its planning and coordinating activities.

California has adopted ambient standards that are more stringent than the federal standards for the criteria air pollutants. These standards are referred to as the California Ambient Air Quality Standards (CAAQS) (**Table 3.12-2**). Under the California Clean Air Act (CCAA), patterned after the federal CAA, areas have been designated as attainment or non-attainment with respect to the state ambient air quality standards. The Weaverville Basin is designated non-attainment by the state with respect to particulate matter less than 10 microns in aerodynamic diameter (PM_{10}) in the Weaverville area during winter months, primarily from residential wood heating. Other sources of PM_{10} in the Weaverville Basin include motor vehicle exhaust, forest management/ waste burning, and fugitive road dust. The Project is located outside of the Weaverville Basin, on the opposite side of Browns Mountain.

Local Requirements

The NCUAQMD has established air quality emission thresholds for stationary sources, which can be used to assess impacts to air quality within Trinity County. Air quality emission significance thresholds (the potential of a new or modified stationary source to emit air contaminants that would equal or exceed any of the following rates in tons per year) for stationary sources are presented in **Table 3.12-3**.

TABLE 3.12-3
AIR QUALITY EMISSION SIGNIFICANCE THRESHOLDS: NORTH COAST UNIFIED AIR QUALITY MANAGEMENT DISTRICT

Air Contaminant	Significant Emission Rate (tons per year)
Carbon monoxide	100
Nitrogen oxides	40
Sulfur dioxide	40
Particulate matter	25
PM_{10}	16
Ozone	49 (as volatile organic compounds [VOC])
Lead	0.6
Asbestos	0.007
Beryllium	0.0004
Mercury	0.1
Vinyl chloride	1
Fluorides	3
Sulfuric acid mist	3
Hydrogen sulfide (H_2S)	7
Total reduced sulfur (including H_2S)	10
Reduced sulfur compounds (including H_2S)	10

Source: NCUAQMD 1988b.

As part of its overall strategy to meet the state's health-based standard for PM_{10}, the NCUAQMD adopted a *PM_{10} Attainment Plan* (NCUAQMD 1995). Included within the Plan are measures to reduce PM_{10} emissions from mobile sources, as well as from wood stoves and other combustion sources. The NCUAQMD also participates in efforts such as the Carl Moyer Program to reduce heavy-duty diesel emissions. The Carl Moyer Program provides financial incentives for companies, fleet operators, and individuals interested in

- purchasing new original equipment manufacturer low-emission or zero emission models that have substantially lower emissions than otherwise required;
- replacing older engines with newer engines with substantially lower emissions; and/or
- retrofitting existing engines (incorporation of a technology or process which results in lower emissions from an existing engine).

The program funds reductions in nitrogen oxide (NO_x) emissions and PM_{10} and toxic compounds contained in diesel exhaust.

North Coast Unified Air Quality Management District

California is divided into Air Pollution Control Districts and Air Quality Management Districts. These agencies are county or regional governing authorities that have primary responsibility for controlling air pollution from stationary

10006 - Trinity River Bridge Replacement/GraphicsFig_3.12-01.ai 03/25/03 CMS Source: California Air Resources Board

Trinity River Bridges Project

North State Resources, Inc.

Figure 3.12-1
California Air Quality Basins

sources. The NCUAQMD establishes policies, regulations, and permit procedures and monitors air quality parameters within Humboldt, Del Norte, and Trinity Counties. The following district air quality control rules applicable to the Project were taken from *Regulation 1: Air Quality Control Rules* (NCUAQMD 1998b).

Rule 420 - Particulate Matter

(a) General Combustion Sources

A person shall not discharge particulate matter into the atmosphere from any combustion source in excess of 0.46 grams per standard cubic meter (0.20 grains per standard cubic foot) of exhaust gas, calculated to 12 percent carbon dioxide (CO_2); or in excess of the limitations of New Source Performance Standards Rule 490, as applicable.

Rule 430 - Fugitive Dust Emissions

(a) The handling, transporting, or open storage of materials in such a manner which allows or may allow unnecessary amounts of particulate matter to become airborne, shall not be permitted.

(b) Reasonable precautions shall be taken to prevent particulate matter from becoming airborne, including, but not limited to, the following provisions:

(1) Covering open bodied trucks when used for transporting materials likely to give rise to airborne dust.

(2) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Containment methods can be employed during sandblasting and other similar operations.

(3) Conduct agricultural practices in such a manner as to minimize the creation of airborne dust.

(4) The use of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.

(5) The application of asphalt, oil, water or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which can give rise to airborne dusts.

(6) The paving of roadways and their maintenance in a clean condition.

(7) The prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.

Trinity County General Plan Goals and Objectives

The Trinity County General Plan contains goals and policies designed to guide the future physical development of the County, based on current conditions. The General Plan contains all the state-required elements, including community development and design, transportation, natural resources, health and safety, noise, housing, recreation, economic development, public facilities and services, and air quality. The following goals and policies, relative to air quality issues associated with the project study area, were taken from the applicable elements of the General Plan (County 2001). This includes the Lewiston Community Plan (County 1986) and the Douglas City Plan (County 1987).

County Wide Goals and Objectives

Safety Element

The following goals and objectives and policies are applicable to this project.

Air Quality Goal

(a). Continue to maintain a high standard of air quality in Trinity County

(b). Ensure burning projects will not diminish air quality

- The burning of any material shall comply with burning permits, conditions and/or standards established by the NCUAQMD.

The General Plan does not specific goals, objectives, or policies specific to air quality associated to vehicular emissions and transportation projects.

Project Consistency with the Trinity County General Plan and Community Plans

As described in Chapter 1, Introduction, the proposed Project would:

- Provide safe and reasonable year-round access to parcels of land served by the Salt Flat, Bucktail, Poker Bar and Biggers Road bridges across the Trinity River.
- Allow dam operators maximum flexibility to provide instream flow releases from Lewiston Dam adequate to meet the fishery and geomorphic flow needs for the mainstem Trinity River and to fulfill the Trinity River TMDL for sediment and restore the coldwater fishery beneficial use.

The following project objectives apply to the project's lead/responsible agencies for CEQA purposes:

- Minimize the threat to public safety and potential damage to property posed by the existing high likelihood of flooding
- Provide maximum flexibility for implementing a variety of potential Trinity River fishery flow alternatives, as well as other flow alternatives outside the ROD such as increasing dam releases during periods of high downstream tributary inflows
- Allow for high-efficiency sediment transport in the Trinity River to maximize the amount of sediment transported on a per acre-foot basis so that Trinity River can be removed from California's Clean Water Act Section 303(d) Impaired Waterbodies List, while minimizing the total amount of water necessary to transport sediment through the river system
- Provide maximum flexibility for operations of the TRD during periods of high runoff and flooding which could result in increased water in storage available for multiple beneficial uses (i.e., fisheries, recreation, water supply, water quality and power production)
- Provide alternative access on a short-term basis during project implementation
- Recovery of fish and wildlife resources that are listed as threatened and endangered

The following objectives apply to the projects responsible and trustee agencies, including the HVT, NCRWQCB, the SLC, the CDFG, and the SWRCB:

- Comply with the Water Code to ensure the highest reasonable quality of waters of the state and allocate those waters to achieve the optimum balance of beneficial uses
- Protect the public trust assets of the Trinity River watershed
- Protect, conserve, restore, and manage fish, wildlife, and native plant resources

- Comply with the Water Quality Control Plan for the Hoopa Valley Indian Reservation to preserve and enhance water quality on the Reservation, and to protect the beneficial uses of water.

These project objectives are consistent with the applicable general plan goals and policies summarized above.

Existing Air Quality Conditions

The CARB publishes summaries of air quality monitoring data from locations throughout the state. In addition, the CARB maintains air quality monitoring sites for PM_{10} in Weaverville. The CARB regional air quality monitoring network provides information on ambient concentrations of criteria air pollutants. Monitored ambient air pollutant concentrations reflect the number and strength of emissions sources and the influence of topographical and meteorological factors. The nearest monitoring station to the project site is located at the Trinity County Courthouse, 101 Court Street in Weaverville, (Weaverville Basin) which is approximately five miles northwest of the nearest Project site (Poker Bar). Pollutant concentrations measured at this station may not be generally representative of background air pollutant concentrations at the project sites because of the influence the Trinity River corridor exerts on local air quality in association with local weather conditions.

Particulate Matter

Suspended or respirable particulate matter (airborne dust) consists of particles small enough to remain suspended in the air for long periods of time. PM_{10} consists of particulate matter 10 microns[3] or less in diameter, which can be inhaled and cause adverse health effects. Particulate matter in the atmosphere results from a variety of dust- and fume-producing industrial and agricultural operations, combustion, and atmospheric photochemical reactions. Some of these operations, such as demolition and construction activities, primarily contribute to increases in local PM_{10} concentrations while others, such as vehicle traffic, affect regional PM_{10} concentrations.

EPA has also promulgated new standards for particulate matter less than 2.5 microns in diameter, or $PM_{2.5}$. PM_{10} includes all particles that are 10 microns or less in diameter; therefore, $PM_{2.5}$ would be considered a subset of PM_{10}. Typically, 30 to 80 percent of all PM_{10} is in the $PM_{2.5}$ range.

Table 3.12-4 shows that over a seven-year period, PM_{10} concentrations exceeded federal or state standards in most years within the Weaverville Basin. In 1999, it was calculated that PM_{10} concentrations (24-hour average) exceeded the state standards for 30 days. This increase in PM_{10} levels was attributed to an unusually high number of wildland fires in the project region during the late summer months.

[3] A micron is one one-millionth of a meter.

TABLE 3.12-4
PM_{10} MONITORING DATA FOR WEAVERVILLE (1995-2001)

				Days Exceeded Ambient Standards	
Criteria	**Year**	**Highest Concentration ($\mu g/m^3$)**	**2nd Highest Concentration ($\mu g/m^3$)**	**Federal Standard**	**State Standard Measured (Calculated)**
24-Hour Average	1995	41.0	37.0	0	0
	1996	72.0	63.0	0	2 (8)
	1997	54.0	42.0	0	1 (6)
	1998	46.2	39.0	0	0
	1999	99.6	78.4	0	6 (30)
	2000	50.8	48.0	0	1 (3)
	2001	72.6	59.0	0	3 (18)

Source: CARB 2002 <www.arb.ca.gov/adam>

3.12.2 Environmental Consequences/Impacts and Mitigation

Methodology

Construction associated with the proposed Project requires the use of construction equipment that temporarily contributes to air pollution within the Trinity River Basin, in the form of ozone precursors and particulate matter. Construction excavation and grading are sources of fugitive dust emissions (PM_{10}) that can have a temporary impact on local air quality. Dust emissions would primarily be associated with land clearing, excavation and fill of materials, and equipment travel on unpaved road surfaces. Exhaust emissions given off by heavy equipment during construction may contribute to ozone non-attainment levels.

The estimated construction time for each of the four project sites (Salt Flat, Bucktail, Poker Bar, Biggers Road) is as follows. Construction is assumed to occur within an eight-hour workday. The exception would be allowance of 15-hour workdays at Salt Flat and Biggers Road from commencement of construction in the fall of 2003 through winter 2004 to minimize the total number of workdays and impacts in the active river channel.

TABLE 3.12-5
ESTIMATED CONSTRUCTION TIME FOR FOUR BRIDGE SITES

Project Location	**Year 1 Construction Days**	**Year 2 Construction Days**
Salt Flat	60	165
Bucktail	90	--
Poker Bar	195	60
Biggers Road	60	165

The air quality analysis is qualitative, and was conducted by assessing anticipated construction-related impacts of the project and comparing them to existing and anticipated future air quality conditions. Due to the nature of the project, information on traffic and localized construction activities was not available. The results are compared to local and national ambient air quality emissions and concentrations standards to determine the level of impact.

Significance Criteria

According to Appendix G of the *CEQA Guidelines*, a project will normally have an adverse impact if it would

- violate any ambient air quality standard;
- contribute substantially to an existing or projected air quality violation;
- conflict with or obstruct implementation of any applicable air quality plan;
- result in a cumulatively considerable net increase of any criteria pollutant (e.g., PM_{10}) for which the region is in nonattainment under an applicable state ambient air quality standard;
- expose sensitive receptors to substantial pollutant concentrations;
- result in substantial air emissions or deterioration of air quality;
- create objectionable odors;
- alter air movement, moisture, or temperature, or result in any change in climate, either locally or regionally; or
- produce toxic air contaminant emissions that exceed the air pollution control district's threshold level for health risk.

Since the first two criteria include violation of either federal or state air quality standards, these criteria will also be used to determine significance for NEPA compliance.

The NCUAQMD has not formally adopted a CEQA threshold of significance for compounds such as CO, NOx, PM_{10}, and SO_2, but does use the significant emission rates listed in **Table 3.12-3** as a baseline when evaluating a project's potential impacts to air quality (B. Torzynski, personal communication, 2002).

Impacts and Mitigation Measures

Table 3.12-6 summarizes the potential air quality impacts resulting from implementation of the proposed Project.

TABLE 3.12-6
SUMMARY OF AIR QUALITY IMPACTS FROM THE PROPOSED TRINITY RIVER BRIDGES PROJECT

Impact	Project Site	No-Action Alternative	Proposed Action	Alternative 1	Alternative 2
1. Construction and operation of the proposed Trinity River Bridges Project could result in an increase in fugitive dust and associated particulate matter (PM_{10}; $PM_{2.5}$) levels.	Salt Flat	NI	S	S	S
	Bucktail	NI	S	S	N/A
	Poker Bar	NI	S	S	N/A
	Biggers Road	NI	S	S	N/A
2. Construction activities associated with the proposed Trinity River Bridges Project could result in an increase in construction vehicle exhaust emissions.	Salt Flat	NI	S	S	S
	Bucktail	NI	S	S	N/A
	Poker Bar	NI	S	S	N/A
	Biggers Road	NI	S	S	N/A

Notes:
LS = Less than Significant S = Significant NI = No Impact SU = Significant Unavoidable
N/A = Not Applicable

The potential for air quality impacts from the implementation of the proposed Project is discussed below.

Salt Flat Bridge

Impact 3.12-1: Construction activities associated with the proposed Trinity River Bridges Project could result in an increase in fugitive dust and associated particulate matter (PM_{10}; $PM_{2.5}$) levels. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, a new bridge would not be constructed at the Salt Flat site. There would be no construction-related increase in fugitive dust and associated particulate matter levels.

Proposed Action (Replacement Downstream, Private Ownership)

As discussed previously, the Salt Flat site is located within the NCAB. Construction-related dust emissions would occur during initial site preparation (including grading and excavation) and actual construction of the new bridge and roadway approaches. Short-term impacts associated with the generation of fugitive dust during construction would be considered significant at a local level due to these emissions.

Alternative 1 (Replacement Upstream, Private Ownership)

Generation of fugitive dust and associated particulate matter levels associated with construction of Alternative 1 could be slightly greater than the Proposed Action due to the greater amount of earthwork required to construct a new approach roadway and new bridge upstream of the existing structure. The project site is located within the NCAB. Short-term impacts associated with the generation of fugitive dust during construction would be considered significant due to these emissions.

Alternative 2 (Replacement Upstream, Public Ownership)

Generation of fugitive dust and associated particulate matter levels associated with construction of Alternative 2 would be similar to Alternative 1.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1; Alternative 2

SF-1a: The BOR shall include provisions in the construction bid documents that the contractor shall implement a dust control program to limit fugitive dust and PM_{10} emissions. The dust control program may include, but not be limited, to the following elements, as appropriate:

- Water inactive construction sites at least twice daily.
- Pursuant to *California Vehicle Code* (Section 23114), all trucks hauling soil and other loose material to and from the construction site shall be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of load and the trailer).
- Excavation activities and other soil-disturbing activities shall be conducted in phases to reduce the amount of bare soil exposed at any one time. When operations are completed in an area, revegetation shall be initiated within 30 days. If an area is closed to operations during the dry season revegetation efforts may be postponed until the first rain to assure revegetation success.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.
- Sweep roads daily (with water sweepers) if visible soil material is carried onto adjacent public roads.
- Apply nontoxic soil stabilizers according to manufacturer's specifications to all inactive construction areas (i.e., previously graded areas inactive for ten or more days.
- All ground-disturbing activities with potential to generate dust shall be suspended when winds exceed 20 miles per hour, as directed by the NCUAQMD.
- Exposed stockpiles of soil and other backfill material shall be enclosed or covered, and watered twice daily or have soil binders added.
- Any topsoil which is removed for the construction operation shall be stored on-site in piles not to exceed four feet in height. These topsoil piles shall be clearly marked and flagged. Topsoil piles which will not be immediately returned to use shall be revegetated with a non-persistent erosion control mixture.
- Soil piles shall be marked and flagged separately from native topsoil stockpiles. These soil piles shall also be planted with a non-persistent erosion control seed mix unless they are to be immediately used. Maximum height for non-topsoil soil stockpiles shall be four feet to allow development of microorganisms prior to resoiling of the construction area.

- Equipment and manual watering would be conducted on all stockpiles, dirt/ gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust.
- The contractor or agency would designate a person to monitor dust control and to order increased watering as necessary to prevent transport of dust offsite. The person would also respond to citizen complaints.

Significance after Mitigation: *Less than Significant.*

Impact 3.12-2: Construction activities associated with the proposed Trinity River Bridges Project could result in an increase in construction vehicle exhaust emissions. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, a new bridge would not be constructed at the Salt Flat site. There would be no increase in construction vehicle exhaust emissions.

Proposed Action (Replacement Downstream, Private Ownership)

Project construction activities would generate emissions from diesel- and gasoline-powered equipment and vehicles. Since the project would take place over at least a two-year period, emissions from the construction equipment are of concern to the NCUAQMD. Diesel particulate is an identified Hazardous Air Pollutant (HAP) and Toxic Air Contaminant (TAC), emissions of which should be minimized. In this regard, the length of the construction will require the contractor to comply with NCUAQMD *Rule 420* (Particulate Matter) or use portable internal combustion engines registered and certified under the state portable equipment regulation.

Alternative 1 (Replacement Upstream, Private Ownership)

Construction vehicle exhaust emissions associated with Alternative 1 are similar to the Proposed Action.

Alternative 2 (Replacement Upstream, Public Ownership)

Construction vehicle exhaust emissions associated with Alternative 2 are similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1; Alternative 2

SF-2a: The BOR shall include provisions in the construction bid documents that the contractors comply with NCUAQMD *Rule 420*. This compliance could occur through the use of portable internal combustion engines registered and certified under the state portable equipment regulation (*Health & Safety Code* 41750 through 41755).

Significance after Mitigation: *Less than Significant.*

Bucktail Bridge

Impact 3.12-1: Construction activities associated with the proposed Trinity River Bridges Project could result in an increase in fugitive dust and associated particulate matter (PM_{10}; $PM_{2.5}$) levels. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, the west approach roadway and the existing culvert would not be replaced at the Bucktail site. There would be no construction-related increase in fugitive dust and associated particulate matter levels.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

As discussed previously, the Bucktail site is located within the NCAB. Construction-related dust emissions would occur during initial site preparation (including grading and excavation) and actual construction of the new culvert and elevated right (west) roadway approach. Short-term impacts associated with the generation of fugitive dust during construction would be considered significant due to these emissions.

Alternative 1 (Raise Existing Upstream Levee)

Generation of fugitive dust and associated particulate matter levels associated with construction of Alternative 1 could be slightly less than the Proposed Action due to the lack of roadway and culvert work associated with this alternative. Short-term impacts associated with the generation of fugitive dust during construction would be considered significant due to these emissions.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1

BT-1a: The BOR shall include provisions in the construction bid documents that the contractor shall implement a dust control program to limit fugitive dust and PM_{10} emissions. The dust control program may include, but not be limited, to the following elements, as appropriate:

- Water inactive construction sites at least twice daily.
- Pursuant to *California Vehicle Code* (Section 23114), all trucks hauling soil and other loose material to and from the construction site shall be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of load and the trailer).
- Excavation activities and other soil-disturbing activities shall be conducted in phases to reduce the amount of bare soil exposed at any one time. When operations are completed in an area, revegetation shall be initiated within 30 days. If an area is closed to operations during the dry season revegetation efforts may be postponed until the first rain to assure revegetation success.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.

- Sweep roads daily (with water sweepers) if visible soil material is carried onto adjacent public roads.
- Apply nontoxic soil stabilizers according to manufacturer's specifications to all inactive construction areas (i.e., previously graded areas inactive for ten or more days.
- All ground-disturbing activities with potential to generate dust shall be suspended when winds exceed 20 miles per hour, as directed by the NCUAQMD.
- Exposed stockpiles of soil and other backfill material shall be enclosed or covered, and watered twice daily or have soil binders added.
- Any topsoil which is removed for the construction operation shall be stored on-site in piles not to exceed four feet in height. These topsoil piles shall be clearly marked and flagged. Topsoil piles which will not be immediately returned to use shall be revegetated with a non-persistent erosion control mixture.
- Soil piles shall be marked and flagged separately from native topsoil stockpiles. These soil piles shall also be planted with a non-persistent erosion control seed mix unless they are to be immediately used. Maximum height for non-topsoil soil stockpiles shall be four feet to allow development of microorganisms prior to resoiling of the construction area.
- Equipment and manual watering would be conducted on all stockpiles, dirt/ gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust.
- The contractor or agency would designate a person to monitor dust control and to order increased watering as necessary to prevent transport of dust offsite. The person would also respond to citizen complaints.

Significance after Mitigation: *Less than Significant.*

Impact 3.12-2: Construction activities associated with the proposed Trinity River Bridges Project could result in an increase in construction vehicle exhaust emissions. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, there would be no increase in construction vehicle exhaust emissions because the west approach roadway and existing culvert would not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

Project construction activities would generate emissions from diesel- and gasoline-powered equipment and vehicles. Since the project would take place over several months, emissions from the construction equipment are of concern to the NCUAQMD. Diesel particulate is an identified HAP and TAC, emissions of which should be minimized. In this regard, the length of the construction will require the contractor to comply with NCUAQMD *Rule 420* (Particulate Matter) or use portable internal combustion engines registered and certified under the state portable equipment regulation.

Alternative 1 (Raise Existing Upstream Levee)

Construction vehicle exhaust emissions associated with Alternative 1 are similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1

BT-2a: The BOR shall include provisions in the construction bid documents that the contractors comply with NCUAQMD *Rule 420*. This compliance could occur through the use of portable internal combustion engines registered and certified under the state portable equipment regulation (*Health & Safety Code* 41750 through 41755).

Significance after Mitigation: *Less than Significant.*

Poker Bar Bridges

Impact 3.12-1: Construction activities associated with the proposed Trinity River Bridges Project could result in an increase in fugitive dust and associated particulate matter (PM_{10}; $PM_{2.5}$) levels. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative there would be no construction-related increase in fugitive dust and associated particulate matter levels because the new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

As discussed previously, the Poker Bar site is located within the NCAB. Construction-related dust emissions would occur during initial site preparation (including grading and excavation) and actual construction of the new bridges and roadway approaches. Short-term impacts associated with the generation of fugitive dust during construction would be considered significant due to these emissions.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Generation of fugitive dust and associated particulate matter levels associated with construction of Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1

PB-1a: The BOR shall include provisions in the construction bid documents that the contractor shall implement a dust control program to limit fugitive dust and PM_{10} emissions. The dust control program may include, but not be limited, to the following elements, as appropriate:

- Water inactive construction sites at least twice daily.
- Pursuant to *California Vehicle Code* (Section 23114), all trucks hauling soil and other loose material to and from the construction site shall be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of load and the trailer).
- Excavation activities and other soil-disturbing activities shall be conducted in phases to reduce the amount of bare soil exposed at any one time. When operations are completed in an area, revegetation shall be initiated within 30 days. If an area is closed to operations during the dry season revegetation efforts may be postponed until the first rain to assure revegetation success.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.
- Sweep roads daily (with water sweepers) if visible soil material is carried onto adjacent public roads.
- Apply nontoxic soil stabilizers according to manufacturer's specifications to all inactive construction areas (i.e., previously graded areas inactive for ten or more days.
- All ground-disturbing activities with potential to generate dust shall be suspended when winds exceed 20 miles per hour, as directed by the NCUAQMD.
- Exposed stockpiles of soil and other backfill material shall be enclosed or covered, and watered twice daily or have soil binders added.
- Any topsoil which is removed for the construction operation shall be stored on-site in piles not to exceed four feet in height. These topsoil piles shall be clearly marked and flagged. Topsoil piles which will not be immediately returned to use shall be revegetated with a non-persistent erosion control mixture.
- Soil piles shall be marked and flagged separately from native topsoil stockpiles. These soil piles shall also be planted with a non-persistent erosion control seed mix unless they are to be immediately used. Maximum height for non-topsoil soil stockpiles shall be four feet to allow development of microorganisms prior to resoiling of the construction area.
- Equipment and manual watering would be conducted on all stockpiles, dirt/ gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust.
- The contractor or agency would designate a person to monitor dust control and to order increased watering as necessary to prevent transport of dust offsite. The person would also respond to citizen complaints.

Significance after Mitigation: *Less than Significant.*

Impact 3.12-2: Construction activities associated with the proposed Trinity River Bridges Project could result in an increase in construction vehicle exhaust emissions. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, there would be no increase in construction vehicle exhaust emissions because the new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

Project construction activities would generate emissions from diesel- and gasoline-powered equipment and vehicles. Since the project would take place over at least a two-year period, emissions from the construction equipment are of concern to the NCUAQMD. Diesel particulate is an identified HAP and TAC, emissions of which should be minimized. In this regard, the length of the construction will require the contractor to comply with NCUAQMD *Rule 420* (Particulate Matter) or use portable internal combustion engines registered and certified under the state portable equipment regulation.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Construction vehicle exhaust emissions associated with Alternative 1 are similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1

PB-2a: The BOR shall include provisions in the construction bid documents that the contractors comply with NCUAQMD Rule 420. This compliance could occur through the use of portable internal combustion engines registered and certified under the state portable equipment regulation (*Health & Safety Code* 41750 through 41755).

Significance after Mitigation: *Less than Significant.*

Biggers Road Bridge

Impact 3.12-1: Construction activities associated with the proposed Trinity River Bridges Project could result in an increase in fugitive dust and associated particulate matter (PM_{10}; $PM_{2.5}$) levels. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative there would be no construction-related increase in fugitive dust and associated particulate matter levels because the new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream)

As discussed previously, the Biggers Road site is located within the NCAB. Construction-related dust emissions would occur during initial site preparation (including grading and excavation) and actual construction of the new bridge and roadway approaches. Short-term impacts associated with the generation of fugitive dust during construction would be considered significant due to these emissions.

Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

Generation of fugitive dust and associated particulate matter levels associated with construction of Alternative 1 could be greater than the Proposed Action because of the additional roadway improvements (raising Steel Bridge Road) associated with this alternative.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1

BR-1a: The BOR shall include provisions in the construction bid documents that the contractor shall implement a dust control program to limit fugitive dust and PM_{10} emissions. The dust control program may include, but not be limited, to the following elements, as appropriate:

- Water inactive construction sites at least twice daily.
- Pursuant to *California Vehicle Code* (Section 23114), all trucks hauling soil and other loose material to and from the construction site shall be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of load and the trailer).
- Excavation activities and other soil-disturbing activities shall be conducted in phases to reduce the amount of bare soil exposed at any one time. When operations are completed in an area, revegetation shall be initiated within 30 days. If an area is closed to operations during the dry season revegetation efforts may be postponed until the first rain to assure revegetation success.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.
- Sweep roads daily (with water sweepers) if visible soil material is carried onto adjacent public roads.
- Apply nontoxic soil stabilizers according to manufacturer's specifications to all inactive construction areas (i.e., previously graded areas inactive for ten or more days.
- All ground-disturbing activities with potential to generate dust shall be suspended when winds exceed 20 miles per hour, as directed by the NCUAQMD.
- Exposed stockpiles of soil and other backfill material shall be enclosed or covered, and watered twice daily or have soil binders added.
- Any topsoil which is removed for the construction operation shall be stored on-site in piles not to exceed four feet in height. These topsoil piles shall be clearly marked and flagged. Topsoil piles which will not be immediately returned to use shall be revegetated with a non-persistent erosion control mixture.
- Soil piles shall be marked and flagged separately from native topsoil stockpiles. These soil piles shall also be planted with a non-persistent erosion control seed mix unless they are to be immediately used.

Maximum height for non-topsoil soil stockpiles shall be four feet to allow development of microorganisms prior to resoiling of the construction area.

- Equipment and manual watering would be conducted on all stockpiles, dirt/ gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust.
- The contractor or agency would designate a person to monitor dust control and to order increased watering as necessary to prevent transport of dust offsite. The person would also respond to citizen complaints.

Significance after Mitigation: *Less than Significant.*

Impact 3.12-2: Construction activities associated with the proposed Trinity River Bridges Project could result in an increase in construction vehicle exhaust emissions. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, there would be no increase in construction vehicle exhaust emissions because the new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream)

Project construction activities would generate emissions from diesel- and gasoline-powered equipment and vehicles. Since the project would take place over at least a two-year period, emissions from the construction equipment are of concern to the NCUAQMD. Diesel particulate is an identified HAP and TAC, emissions of which should be minimized. In this regard, the length of the construction will require the contractor to comply with NCUAQMD *Rule 420* (Particulate Matter) or use portable internal combustion engines registered and certified under the state portable equipment regulation.

Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

Construction vehicle exhaust emissions associated with Alternative 1 could be greater than the Proposed Action because of the additional roadway improvements (raising Steel Bridge Road) associated with this alternative.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1

BR-2a: The BOR shall include provisions in the construction bid documents that the contractors comply with NCUAQMD *Rule 420*. This compliance could occur through the use of portable internal combustion engines registered and certified under the state portable equipment regulation (*Health & Safety Code* 41750 through 41755).

Significance after Mitigation: *Less than Significant.*

SECTION 3.13

Environmental Justice

3.13 Environmental Justice

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," dated February 11, 1994, requires federal agencies to identify and address disproportionately high and adverse human health or environmental effects of their actions on minorities and low-income populations and communities as well as the equity of the distribution of the benefits and risks of their decisions. Environmental justice addresses the fair treatment of people of all races and incomes with respect to actions affecting the environment. Fair treatment implies that no group of people should bear a disproportionate share of negative impacts from an environmental action. To comply with the environmental justice policy established by the Secretary, all DOI agencies are to identify and evaluate any anticipated effects, direct or indirect, from the proposed project, action, or decision on minority and low-income populations and communities, including the equity of the distribution of the benefits and risks. Accordingly, this section examines the anticipated impacts associated with the alternatives with respect to potentially affected minority and economically disadvantaged groups. Socioeconomic issues, including population and housing, are evaluated in Section 3.9, Socioeconomics, Population, and Housing. This section does not function as part of the EIR portion of the joint EA/DEIR, as nothing in the CEQA requires state or local agencies to address environmental justice concerns in an EIR. Thus, environmental justice is not a CEQA issue.

3.13.1 Affected Environment/Environmental Setting

Regional Setting

Poverty Rate

The Census uses a set of money income limits that vary by family size and composition to determine who is poor. If a family's total income is less than the income limit, then that family, and every individual in it, is considered poor. Poverty income level thresholds are nationwide standards set by the Census. The formula for the poverty rate is the number of persons below poverty divided by the number of persons for whom poverty status is determined. Poverty rates calculated for Trinity County and its component communities are depicted in **Table 3.13-1**.

TABLE 3.13-1
POVERTY RATE, TRINITY COUNTY

Community	1989	1998
Coffee Creek	4.0%	4.0%
Trinity Center	9.8%	9.6%
Weaverville	9.6%	9.5%
Lewiston	16.3%	16.1%
Douglas City	21.2%	20.9%
Lower Trinity	15.6%	15.4%
Mid Trinity	32.1%	31.7%
Helena and Junction City	20.4%	20.2%
Hyampom	35.2%	34.7%
Hayfork Area	28.7%	28.3%
Ruth / Mad River	21.0%	20.8%
Zenia / Kettenpom	28.1%	27.5%
Trinity County	18.5%	18.3%

TABLE 3.13-1
POVERTY RATE, TRINITY COUNTY

Community	1989	1998
California	12.5%	11.8%

Source: Adapted from CED 2001

In 1998, approximately 18 percent of the population in Trinity County was living in poverty. The 1998 median household income for Trinity County was approximately $27,000, 40 percent less than the average California income. For most communities in Trinity County, poverty rates are higher than poverty rates of the state. Only three of the thirteen County communities have poverty rates lower than the state, Coffee Creek, Trinity Center, and Weaverville. The other 10 communities had poverty rates from 3.8 to 22.7 percent above the state poverty rate. The community in the County with the highest poverty rate is Hyampom.

Population by Race/Ethnicity

Population by race and ethnicity is estimated annually by the California Department of Finance, Demographic Research Unit. Population by race and Hispanic ethnicity is presented for the County in **Table 3.13-2.** Population by race and Hispanic ethnicity is compiled by what the respondents to the 1990 Census consider their primary ancestry. White, black, American Indian, and Asian are racial designations, while Hispanic is an ethnic designation that can be a mixture of white, black, and American Indian races. The Hispanic population is separated from the four main racial groups because many Hispanic people associate their ancestry with their ethnicity rather than their race.

TABLE 3.13-2
TRINITY COUNTY RACE/ETHNICITY DISTRIBUTION

Year	White	Hispanic	Asian or Pacific Islander	Black	American Indian, Eskimo, or Aleut	Total
1990	11,843	431	99	53	595	13,021
1991	11,861	434	100	53	605	13,053
1992	11,937	440	100	54	616	13,147
1993	11,966	445	102	56	629	13,198
1994	12,129	461	102	56	634	13,382
1995	12,095	471	102	56	639	13,363
1996	12,037	481	106	59	645	13,328
1997	11,939	485	108	59	654	13,245
1998	11,920	489	110	59	662	13,240
1999	12,020	492	113	59	669	13,353

Source: Adapted from CED 2001

According to the 2000 Census, the vast majority of the population in Trinity County (approximately 90 percent) consists of white non-Hispanic individuals. The remainder of the population is predominantly Native American (five percent) and Hispanic (three percent).

Following state patterns, the percentage of Hispanic and American Indian people in Trinity County is increasing (see **Table 3.13-2**). In 1990, the Hispanic population was 3.3 percent of the County's total population. By 1999, the percentage had increased to 3.7 percent of the total. The largest minority population in the County is the American Indian population. In 1990, American Indian counts were at 4.6 percent of the total County population and rose to five percent by 1999. During the same period, California's American Indian population dropped from 0.7 percent to 0.6 percent of total population. In 1990, Trinity County's non-Hispanic white population was 91 percent of the County's total population. By 1999, the percentage had dropped to 90 percent of the total. Comparatively, California's non-Hispanic white population dropped from 57 percent of the total population in 1990 to about 52 percent in 1998. The percentage of black and Asian residents of the County stayed the same. **Table 3.13-3** provides a break down of Trinity County race and ethnicity by community.

TABLE 3.13-3
TRINITY COUNTY RACE/ETHNICITY BY COMMUNITY

Community	White	Hispanic	Asian or Pacific Islander	Black	American Indian, Eskimo, or Aleut	Other Race
Coffee Creek	213	0	0	0	11	0
Trinity Center	498	85	7	26	0	57
Weaverville	3,513	144	19	27	116	20
Lewiston	1,324	8	0	6	22	0
Douglas City	980	5	6	0	6	5
Lower Trinity	1,066	128	0	0	148	38
Mid Trinity	286	22	15	0	0	0
Helena and Junction City	605	7	0	0	70	0
Hyampom	276	0	0	0	25	0
Hayfork	2,632	47	22	0	169	15
Ruth/Mad River	545	15	0	0	52	15
Zenia/Kettenpom	195	0	0	0	33	0
Trinity County	12,133	461	69	59	652	150

Source: Adapted from CED 2001

Almost 60 percent of the County's white non-Hispanic population, 81.2 percent of the Asian population, and 66.4 percent of the American Indian population in the County live in Weaverville, Lower Trinity, and Hayfork. Zenia/Kettenpom, Hyampom, and Coffee Creek are areas that do not have a broad racial/ethnical distribution of people.

Local Setting

The Trinity River flows through the center of the Project area, and provides a variety of beneficial uses on a year-around basis. The fisheries resources (chinook and steelhead) are widely known, and provide recreational benefits for local and visiting anglers. This provides economic benefits for the general surrounding area in the form of increased patronage of surrounding businesses.

The median income for the communities included in the Lewiston/Douglas City Plan's is $25,000, 46 percent less than the average California income. Almost 50 percent of the County's employed are involved in two distinct labor categories. Managerial and professional specialty occupations and technical, sales, and administrative support

occupations are centered in the population centers like Weaverville and Hayfork. There are limited opportunities for agriculture and other labor-intensive activities, thereby minimizing the attraction for a transitional labor pool.

The Lewiston/Douglas City community is predominantly white. Two percent of the population has a different racial/ethnic background. No racial or ethnic group is disproportionately associated with this area.

3.13.2 Environmental Consequences/Impacts and Mitigation Measures

Methodology

The EPA compares three factors (minority representation, low-income representation, and environmental burden) between a community of concern and one or more reference areas, (i.e., County-wide) in order to analyze potential environmental justice impacts. A community of concern can be defined in a number of ways, including municipality, census block group, user-defined radius around a source of pollution, or a boundary drawn along physical features such as streets, streams, or railroad tracks. The demographic data for the community of concern can then be analyzed to determine whether the area is a potential environmental justice concern.

As part of this analysis, the poverty levels and minority levels were examined for Trinity County, as well as the communities of Lewiston and Douglas City. Detailed information on the residential areas associated with the proposed Project is unavailable.

Significance Criteria

Environmental justice is not a CEQA issue. No specific significance criteria were applied in the evaluation of potential environmental justice consequences, although the modification or change in environmental justice factors was evaluated.

Impacts and Mitigation Measures

Table 3.13-3 summarizes the potential environmental justice impacts resulting from construction and operation of the proposed Project.

All Bridge Sites (Salt Flat, Bucktail, Poker Bar, Biggers Road)

Impact 3.13-1: Implementation of the proposed Trinity River Bridges Project could adversely affect a minority or low-income population and/or community. ***No Impact for No-Action Alternative, Less than Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

TABLE 3.13-3
SUMMARY OF ENVIRONMENTAL JUSTICE IMPACTS FROM THE PROPOSED TRINITY RIVER BRIDGES PROJECT

Impact	Project Site	No-Action Alternative	Proposed Action	Alternative 1	Alternative 2
1. Implementation of the proposed Trinity River Bridges Project could adversely affect a minority or low-income population and/or community.	Salt Flat	LS	LS	LS	LS
	Bucktail	LS	LS	LS	N/A
	Poker Bar	LS	LS	LS	N/A
	Biggers Road	LS	LS	LS	N/A

Notes:

LS =Less than Significant S = Significant NI = No Impact SU = Significant Unavoidable
N/A =Not Applicable

No-Action Alternative

Under the No-Action Alternative, no impact to a minority or low-income population or community would take place because construction associated with the proposed Project would not occur.

All Project Alternatives (Proposed Action; Alternative 1; Alternative 2)

Although minority and low-income residents live in the project corridor(s), project impacts would be experienced by residents generally in relationship to their proximity to the selected alignment, regardless of their racial or income characteristics. There is no evidence to suggest that this project would cause a disproportionately high, adverse human health or environmental effect on minority and low-income populations, compared to other residents in the project corridor(s) and other Trinity County residents. The known health risks to residents that could be associated with the project are identified in Section 3.5, Water Quality; Section 3.12, Air Quality; and Section 3.15, Hazardous Materials of this EA/DEIR. For the most part, these health risks are associated with the construction phase of the project, when residents and construction workers could be exposed to materials that may be found within the project corridor ROW adjacent to former and existing residential and commercial land uses. Possible health risks to minority and low-income residents also include the risk of construction-related accidents. The BOR will manage this construction project to minimize these risks, as required by applicable federal and state safety regulations. Therefore no specific or disproportionate health risks on low-income groups would be associated with any of the proposed bridge crossings.

Mitigation Measures

No-Action Alternative; All Action Alternatives (Proposed Action; Alternative 1; Alternative 2)

Since no significant impact has been identified for these alternatives, no mitigation measures are required

Significant After Mitigation: N/A.

SECTION 3.14

Aesthetics

3.14 Aesthetics

This section addresses aesthetic issues related to construction and operation of the proposed Project, including the project conformance with the federal and state WSRAs. The existing visual character of the region and project study area is described. The following evaluation is based on review of local land use plans and policies specific to recreational uses, and field reconnaissance to identify potential recreational opportunities relative to the proposed project construction activities.

3.14.1 Affected Environment/Environmental Setting

Regional Setting

The Trinity River is considered an important aesthetic and visual resource for residents of Trinity County and visitors to the area. The river is an integral component of the communities and residential areas throughout the County. Residents and visitors actively use the river for recreation, both on and adjacent to the river. The river also offers a variety of landscapes, many of which are incorporated into the rural residential lifestyle of Trinity County.

The Trinity River below Lewiston Dam is designated as either Recreation or Scenic to the confluence with the Klamath River as part of the federal Wild and Scenic River System, and is listed as a Wild and Scenic River by the State of California.

Since the construction of the TRD of the CVP, the flow regime of the Trinity River has been significantly changed (USFWS and HVT 1999). These changes have resulted in substantial changes in the ecology and landscape features downstream of the TRD. A substantial increase in residential development has occurred since 1970, resulting in a number of subdivisions adjacent to the Trinity River. A diverse assemblage of residential structures has been developed over time.

Local Context

Salt Flat

The existing Salt Flat Bridge on Salt Flat Road is a single lane, 270-foot-long, 10-foot-wide, four-span bridge. This privately owned structure is constructed of railroad flat bed cars with the undercarriage removed. The flat cars sit on welded steel piers that have V-shaped steel plates on their upstream side. Short stanchions (approximately 30 inches high) with steel cable lifelines are present along portions of both sides of the bridge. The abutment areas are highly disturbed by vehicles and past construction activities. Functionality was the prime factor in the design and construction of this bridge.

The Trinity River and Salt Flat Bridge dominate the riverine landscape in the project area. Rural residential development that occurs just outside the project area to the west and east is almost completely obscured by natural vegetation (hardwood and conifer). Montane riparian and montane hardwood conifer plant communities dominate the project area.

The Salt Flat Bridge spans multiple channels of the Trinity River, the main, high-velocity channel and a lower-velocity side channel. The terrain on the right side of the Salt Flat Bridge, which abuts the main channel, is densely vegetated and contains an expansive riparian corridor, characterized by large overstory trees and variably dense

understory vegetation. The terrain on the left side of the bridge abuts the lower-velocity side channel and is generally flat, with a sparsely vegetated, shrubby riparian area. A vegetated island lies in the center of the Trinity River at the bridge crossing.

Flows in this segment of the Trinity River are influenced by upstream releases at the Lewiston Dam, resulting in relatively stable river levels. During peak flows, the river is wide and the channel is near capacity. Conversely, when the flows are low, the water is shallow, with bedrock and gravel bars exposed in the channel.

Bucktail

The Bucktail Bridge on Browns Mountain Road is a single span, 76-foot-long, 32 foot-wide, steel girder structure with pile-supported concrete abutments. Trinity County built this bridge in 1984 and maintains it as part of the County Road System. The overall landscape consists of a meandering river through a wide alluvial flat, with mountains on the west side and rolling hills to the east. The riverine landscape in the project area is dominated by the Trinity River and Bucktail Bridge. Rural residential development is visible on the right side of the river, and extends downstream as far as Grass Valley Creek. Large mine tailings deposits are located on the left side of the bridge, principally on public lands managed by the BLM.

Plant communities in the project area include montane riparian and montane hardwood conifer. The terrain on the northwest side of the project area is sparsely vegetated due to rural residential encroachment into the riparian zone. Riparian vegetation is less disturbed and denser north (upstream) of the project site. The terrain on the northeast side of the bridge is less developed and, aside from the rock quarry, more densely vegetated with alder and willows. The views to the southwest are of dense riparian vegetation that has colonized the point bar; this riparian vegetation ends just before the project boundary. Riparian community development southeast of the bridge is inhibited by the eroding riverbank; the mixed-conifer community type dominates this portion of the project area.

Flows in this segment of the Trinity River are influenced by upstream releases at the Lewiston Dam, resulting in relatively stable river levels. During peak flows, the river is wide and the channel is near capacity. Conversely, when the flows are low, the water is shallow, with bedrock and gravel bars exposed in the channel.

Poker Bar

At Poker Bar, the Trinity River has two main channels separated by a 180-foot-wide channel bar alluvium deposit. The existing bridge on Bridge Road consists of two single-span railway car structures crossing the channels. The structure over the right channel is 87 feet long, 18 feet wide, and constructed of twin side-by-side railway cars. The existing structure over the left channel is 52 feet long, 20 feet wide, and constructed with twin side-by-side railway cars. Steel "H" piles at the abutments support both structures. The abutments are rubble fill. The rail cars are less than 50 years of age. The construction of the Poker Bar Bridges is extremely crude and bridge condition is poor. A broken and failing concrete retaining wall and two concrete-filled, steel-riveted caissons are present in front of each abutment and appear to be remnants of former bridges. Further evidence of previous structures includes the presence of large, broken concrete slabs in the channel just downstream of the bridge (Sherer 2001).

The overall landscape in the Poker Bar area consists of terrace deposits flanked by mountains on either side. The Trinity River is a minor component of the landscape; the riparian forest obscures it from view. The project ESL contains predominantly montane riparian and riverine habitat, with several large swaths of flat, nearly barren ground.

The montane riparian plant community type dominates the area bordering the two channels of the Trinity River in the Project ESL. The northwestern portion of the project area and part of the central island in the river channel are extremely flat and almost completely devoid of vegetation. Several residences lie just outside the project boundary.

Flows in this segment of the Trinity River are influenced by upstream releases at the Lewiston Dam, resulting in relatively stable river levels. During peak flows, the river is wide and the channel is near capacity. Conversely, when the flows are low, the water is shallow, with bedrock and gravel bars exposed in the channel.

Biggers Road

The existing Biggers Road Bridge is a four-span, 201-foot-long, 12-foot-wide, railway car structure supported on concrete piers and abutments. The overall landscape consists of steep mountainous terrain bisected by a river flowing through a confined floodplain. The Trinity River and Biggers Road Bridge dominate the landscape in the project ESL. Rural residential development along the Trinity River is visible to the south/southwest. The dominant plant communities in the project area are Klamath mixed-conifer, montane hardwood-conifer, and montane riparian.

The terrain on either side of the Biggers Road Bridge is densely vegetated and contains an expansive riparian corridor with varied age classes and structure. Rural residential development interrupts the riparian corridor to the south. The dense mixed-conifer upland dominates the landscape beyond the riparian corridor.

Flows in this segment of the Trinity River are influenced by upstream releases at the Lewiston Dam, resulting in relatively stable river levels. During peak flows, the river is wide and the channel is near capacity. Conversely, when the flows are low, the water is shallow, with bedrock and gravel bars exposed in the channel.

Visual Environment

Because visual images dominate the impressions that observers form of a landscape, views of bridges in the river corridor exert a large influence on the aesthetic values of an area. Bridges over the Trinity River are a predominant feature along the corridor, and influence the character of the existing landscape. To explain how such influence is brought to bear, aesthetic value must be defined. The aesthetic value of an area is a measure of its visual character and scenic quality combined with the viewer response to the area. Viewer response is a combination of exposure and sensitivity. Viewer exposure to a viewshed varies with the number of viewers, the number of views seen, the distance of the views and the viewing duration. Viewer sensitivity relates to the extent of the publics concern for particular landscapes.

Salt Flat

Assuming the Salt Flat Bridge is central to the surrounding viewshed, the area most directly affected by this view is encompassed within an approximate 580-foot radius. The Salt Flat viewshed is generally characterized as follows: on the north, by the first river bend north of the bridge; to the east, by the lower portion of the Bonk property and the entrance to Salt Flat Road; to the south, just below the apex of the first bend in the river; and to the west, just past the bridge before the road curves to the south.

Bucktail

Assuming the Bucktail Bridge is central to the surrounding viewshed, the area most directly affected by this view is encompassed within an approximate 620-foot radius. For purposes of this analysis, the viewshed is generally

characterized as follows: on the north, by the first river bend north of the bridge; to the east, just west of the roadway curve; to the south, just below the apex of the first bend in the river; and to the west, just east of the roadway curve.

Poker Bar

Assuming the Poker Bar Bridges are central to the surrounding viewshed, the area most directly affected by this view is encompassed within an approximate 580-foot radius. For purposes of this analysis, the viewshed is generally characterized as follows: on the northeast, by the first river bend north of the bridge; to the southeast, just north of the roadway curve; to the southwest, just below the apex of the first bend in the river; and to the northwest, the residential area just west of the T intersection.

Biggers Road

Assuming the Biggers Road Bridge is central to the surrounding viewshed, the area most directly affected by this view is encompassed within an approximate 290-foot radius. For purposes of this analysis, the viewshed is generally characterized as follows: on the northwest, north of the first river bend upstream of the bridge; to the southeast, just downstream of the first bend in the river; to the southwest, the Treadwell property; and to the northeast, the entrance to Biggers Road.

Viewer Characteristics and Key Views

Project Viewer Groups

The perceptions of viewers are influenced by their location, specific activities in which they engage, personal degree of awareness, and individual values and goals. Construction associated with the proposed Project could impact three major project viewer groups: motorists, residents, and recreationists. For the purposes of this study, *motorists* are those users who have a view of a given project area from a roadway; *residents* are people whose home and/or property have a view of a given project area; and *recreationists* are members of the community or the general public who use the project area, or a portion of the project area, for recreational purposes.

Motorists

Motorists may be drivers or passengers who use highways for transportation purposes. These users can typically be classified as commuters, local road users, or tourists. Tourists are typically more aware of overall appearance from the road, whereas local residents who travel the same routes frequently may be acclimated to the general view, but are more likely to be aware of visual changes. Regardless of the type of highway user, views are usually short-duration, with less foreground emphasis.

Residents

Residents live in close proximity to the project area. The individual sensitivity of residents is highly variable. Generally, residents and park and recreational users are the most sensitive to highway-related visual impacts. The existing bridges are not architecturally unique conveyances; rather their designs target functionalism. However, there are few locations in the project vicinity where the Trinity River can be viewed from a highway while driving through the area. The four bridge crossings afford such views of the river and offer members of the community an opportunity to enjoy the scenic beauty of this unique resource.

Recreationists

Recreationists use the project area or a portion of the project area for purposes of recreation. Types of recreation popular in the project area include boating, walking, biking, and fishing. Generally, residents and recreational users are the most sensitive to highway-related visual impacts.

During the primary recreation season (Memorial Day to Labor Day, or approximately the last week of May to the end of the first week in September), water-dependent and water-enhanced Trinity River recreation includes boating, kayaking, canoeing, rafting, inner tubing, fishing, swimming, wading, camping, gold panning, nature study, picnicking, hiking, and sightseeing. Fishing for chinook salmon, steelhead, and rainbow and brown trout is a major recreational activity on the Trinity River during the remainder of the year. Developed recreation areas along the Trinity River consist of private campgrounds, resorts, and lodges; public campgrounds and picnic areas; and fishing access sites. About 34 developed recreation sites are located within 0.5 mile of the Trinity River. More than 200 river access sites were inventoried in 1979 between Lewiston Dam and Weitchpec.

Based on USFS information, an estimated 214,000 RVDs were spent on the Trinity River in 1995. The most popular recreation activities on the Trinity River are boating, swimming, hiking, and fishing.

Salt Flat

Salt Flat Bridge is a privately owned bridge and, as such, is used primarily by residents and their guests. The Salt Flat Bridge gate is locked on weekends during hunting season and no legal public access exists at the site. Thus, the majority of motorist and recreationists who use the Salt Flat Bridge are also residents of the Salt Flat community. Members of the general public (tourists, recreationists, motorists, and residents of other communities) have limited opportunity to view the Salt Flat Bridge site, because large conifer trees obscure it from view except at the Salt Flat Road entrance. Salt Flat Road is also privately owned.

Bucktail

Bucktail Bridge is used by all three of the user groups. It is the site most frequently viewed by the general public and most often used by recreationists. Two public access points are located adjacent to the Bucktail Bridge, and the area just downstream of the bridge is a popular fishing destination.

Poker Bar

The Poker Bar Bridges are privately owned and, as such, are used primarily by residents and their guests. Thus, the majority of motorist users and recreationists who use the Poker Bar Bridges are also residents of the Poker Bar community. Members of the general public (tourists, recreationists, motorists, residents of other communities) have limited opportunity to view the Poker Bar Bridges site because of vegetation and topography.

Biggers Road

Biggers Road Bridge is a privately owned bridge serving a small number of residents. The bridge is used solely by residents and their guests. Steel Bridge Road is directly adjacent and parallel to the Trinity River in the project study area. However, highway users have limited opportunity to view the Biggers Road Bridge site from Steel Bridge Road because of the vegetation that lies between the Trinity River and Steel Bridge Road. The Biggers Road Bridge can be observed from Steel Bridge Road at only two vantage points: the entrance to Biggers Road and north of the bridge,

looking south. A public day-use recreation site is located several miles upstream of the Biggers Road site. Recreationists traveling down the Trinity River toward the Biggers Road Bridge would have a clear view of this project site.

Visual Assessment Units and Key Observation Points

Visual Assessment Units (VAUs) are areas of distinct visual character within the viewshed that provide a framework for comparing the visual effects of the project alternatives. **Figure 3.14-1** illustrates a generalized visual impact assessment process used for this analysis. Key observation points (KOPs) are commonly traveled routes or other likely observation points from which a representative group (local residents, recreationists, and highway users) can view the proposed project. KOPs were selected from within the VAUs and are based on population concentrations and susceptibility to changes in visual resources. Descriptions of the KOP locations at each of the proposed bridge sites are provided below.

Salt Flat

Three VAUs were identified in the project area due to their orientation to the Salt Flat Bridge, land uses in each unit, and landscape characteristics (**Figure 3.14-2a**). The Salt Flat Bridge is a common feature to all three VAUs.

VAU #1: Eastern Residence Unit

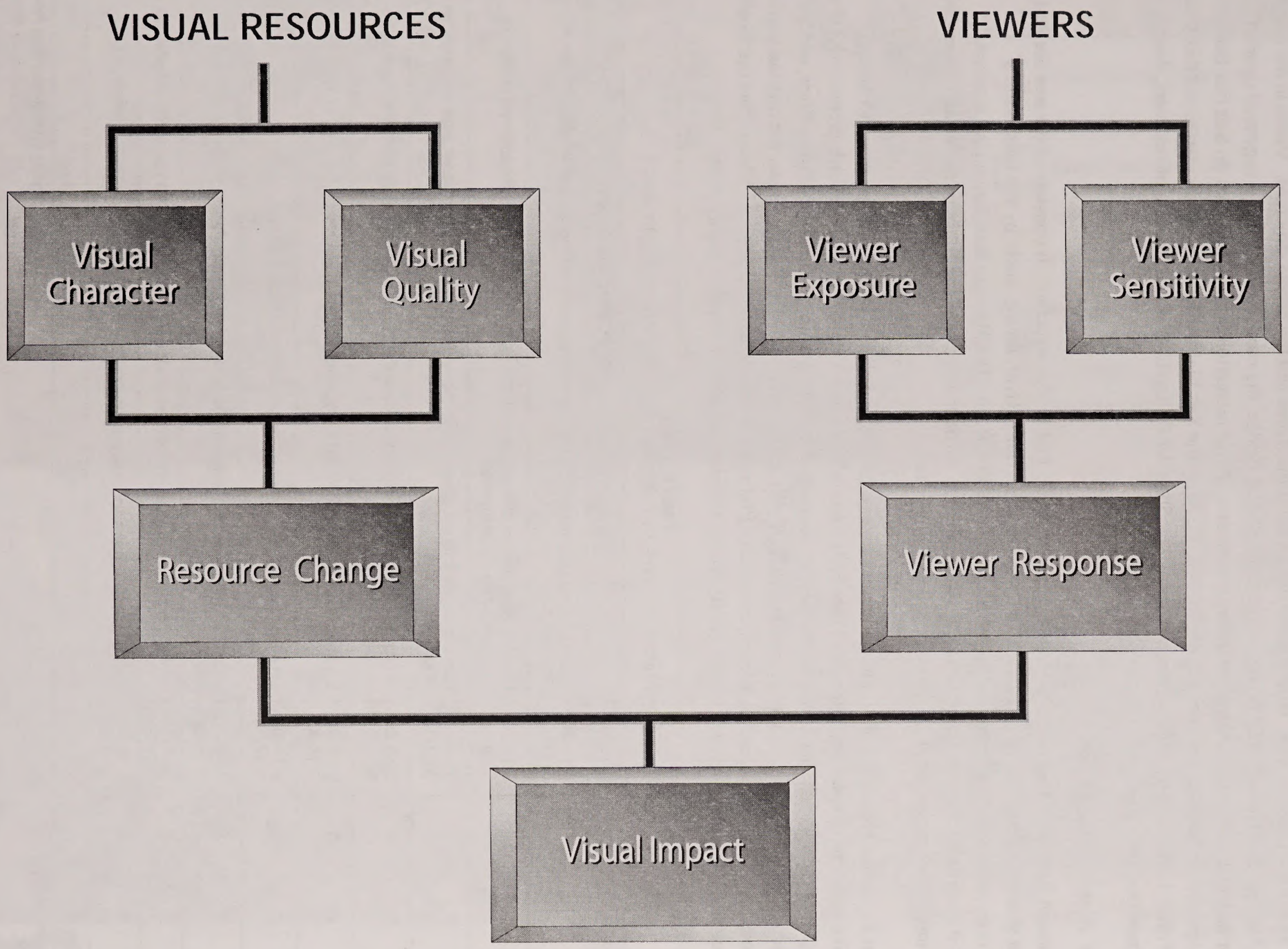
The Eastern Residence Unit is located to the east of the bridge structure. It consists of the area flanked on the east side by Goose Ranch Road and the Bonk property, on the west, by the Trinity River, on the south, by the Harris residence, and on the north, by the Huntington residence. Except for Goose Ranch Road, the Eastern Residence Unit is privately owned and consists of flat to gently undulating grasslands, a landscape mix of native and ornamental vegetation, and private single-family residences.

The views from this upland area are expansive from certain vantage points (**Figure 3.14-3a**). Views are dominated by residential development and clumps of large conifer trees in the foreground and the forested mountains to the west. Salt Flat Road and bridge and the Trinity River are minor components of the overall view.

Three vegetated corridors occur within the Eastern Residence Unit: the coniferous corridor along Salt Flat Road, the coniferous corridor along the Trinity River, and the riparian corridor along the Trinity River. The riparian corridor is sparsely vegetated, affording full views of the Trinity River to the south of the project area. However, the two conifer corridors completely obscure views of the Salt Flat Bridge from several residences adjacent to the project area (i.e., the Bonk residence and Harris residence).

Salt Flat Road is visible from each of four KOPs identified within the Eastern Residence Unit: the Harris residence (KOP #1), the Huntington residence (KOP #4), the group of residences to the northeast of the bridge (KOP #3), and the Bonk residence/ entrance to Salt Flat Road (KOP #2).

Salt Flat Bridge is visible from three KOPs within the Eastern Residence Unit: from the entrance to Salt Flat Road/lower portion of the Bonk property (KOP #2), from the group of residences just northeast of the Salt Flat Bridge (KOP #3), and from the Huntington residence well upstream of the bridge (KOP #4).



10006 - Trinity River Bridge Replacement/Graphics/Figure_3.14-1.ai 03/24/03 Source: Federal Highway Administration, 1983

North State Resources, Inc.

Figure 3.14-1
Visual Resource Assessment Process

VAU #2: Salt Flat Bridge Unit

The Salt Flat Bridge Unit is bounded by the bridge limits to the east and west and by river bends to the north and south. This VAU consists of the Trinity River within the project area and the bridge structure. Views in the Salt Flat Bridge Unit are dominated by the Trinity River, the Salt Flat Bridge, the moderate to densely vegetated riparian corridor and, to a lesser extent, the surrounding mountains. River recreationists and motorists on Salt Flat Bridge are the groups who experience this view (KOPs #5, #6). Because the Salt Flat Bridge is privately owned and this stretch of the Trinity River has no public access, viewers in the Salt Flat Bridge Unit consist mainly of residents, their guests, and recreational river users.

VAU #3: Western Residence Unit

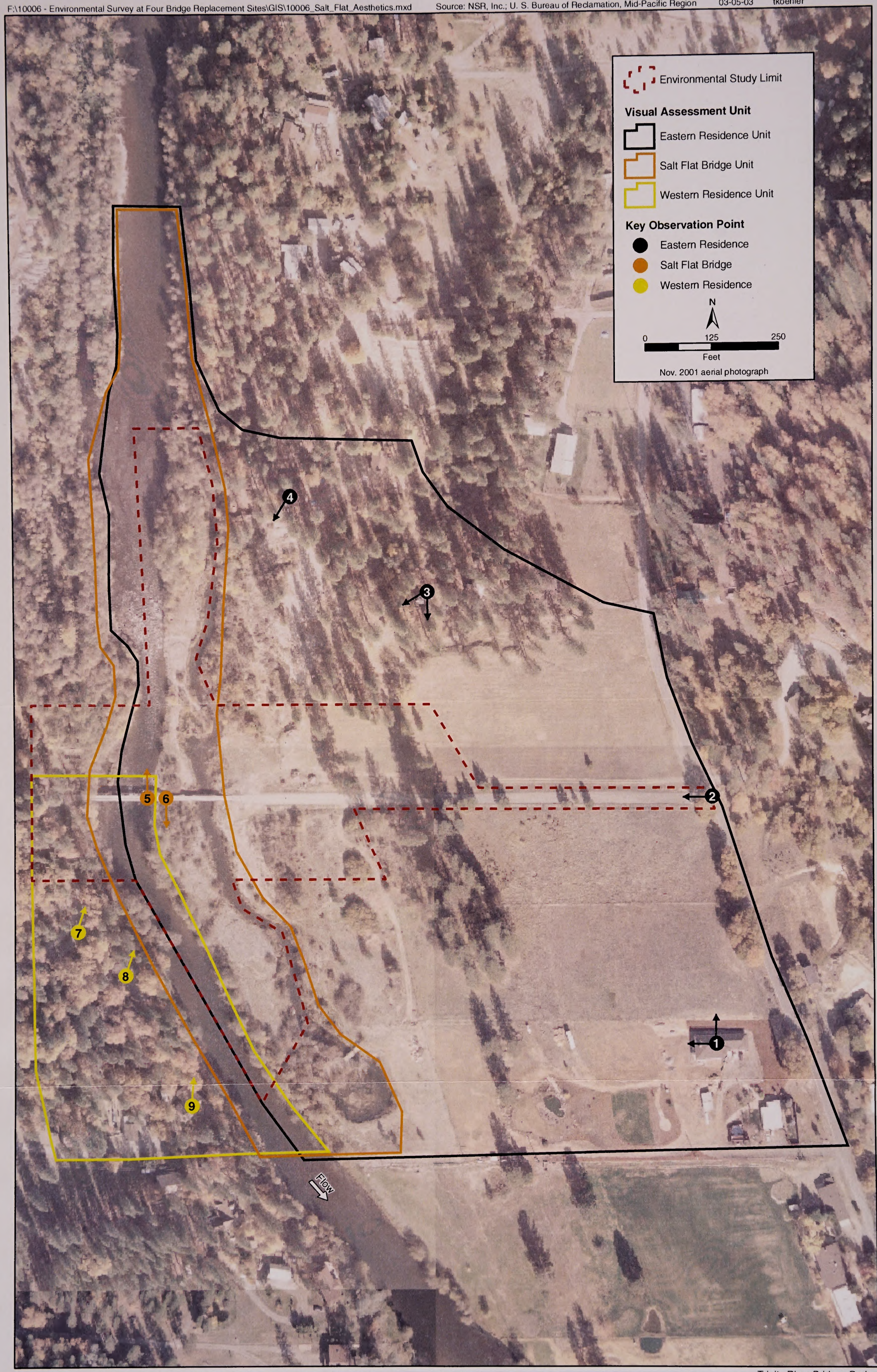
The Western Residence Unit is located to the west of the Salt Flat Bridge structure. It consists of the area flanked on the west side by the Salt Flat Road curve, on the east by the Trinity River, on the south, by the Gustavson's downstream neighbor's residence, and on the north, by Salt Flat Road. The Western Residence Unit is privately owned; it consists of the river floodplain with sparse riparian corridor and a landscape mix of native and ornamental vegetation, private single-family residences, and Salt Flat Road.

Western Residence Unit views are limited when in close proximity to Salt Flat Bridge and become increasingly expansive as one progresses downstream. Three KOPs are in this Unit. Views from the Richards property (KOP #7), which is the closest to Salt Flat Road and bridge, are dominated by the riparian corridor, the Trinity River, and Salt Flat Bridge. Views from the Gustavson residence (KOP #8) are dominated by the Trinity River, the riparian corridor, coniferous forests to the east, and to a lesser extent Salt Flat road and the distant mountains. Views from the Rock's residence (KOP #9) are dominated by the Trinity River, riparian vegetation, and the Trinity Alps.

TABLE 3.14-1
KEY OBSERVATION POINTS IN THE SALT FLAT BRIDGE PROJECT AREA

VAU #	KOP #	Figure #	Description of Key Observation Point
1	1	3.14-2a; 3.14-3a	Looking north and west from the Harris residence, on the east side of the Trinity River (**Photos 1-2**)
1	2	3.14-2a; 3.14-3a	Looking west across the bridge from the entrance to Salt Flat Road/lower portion of the Bonk property (**Photo 3**)
1	3	3.14-2a; 3.14-3a	Looking south and southwest from the residences on the northeast side of the bridge (**Photos 4-5**)
1	4	3.14-2a; 3.14-3a	Looking southwest (downstream) toward the existing bridge site from the Huntington residence (**Photo 6**)
2	5	3.14-2a; 3.14-3a	Looking north (upstream) from the bridge (**Photo 7**)
2	6	3.14-2a; 3.14-3a	Looking south (downstream) from the bridge (**Photos 8-10**)
3	7	3.14-2a; 3.14-3a	Looking north (upstream) toward the bridge from the Richards property (**Photos 11-12**)
3	8	3.14-2a; 3.14-3a	Looking north (upstream) toward the bridge from the Gustavson property (**Photo 13**)
3	9	3.14-2a; 3.14-3a	Looking north (upstream) toward the bridge from the Rock's property (**Photo 14**)

F:\10006 - Environmental Survey at Four Bridge Replacement Sites\GIS\10006_Salt_Flat_Aesthetics.mxd Source: NSR, Inc.; U. S. Bureau of Reclamation, Mid-Pacific Region 03-05-03 tkoehler



Trinity River Bridges Project

North State Resources, Inc.

Figure 3.14-2a
Salt Flat Bridge
Visual Assessment Units & Key Observation Points

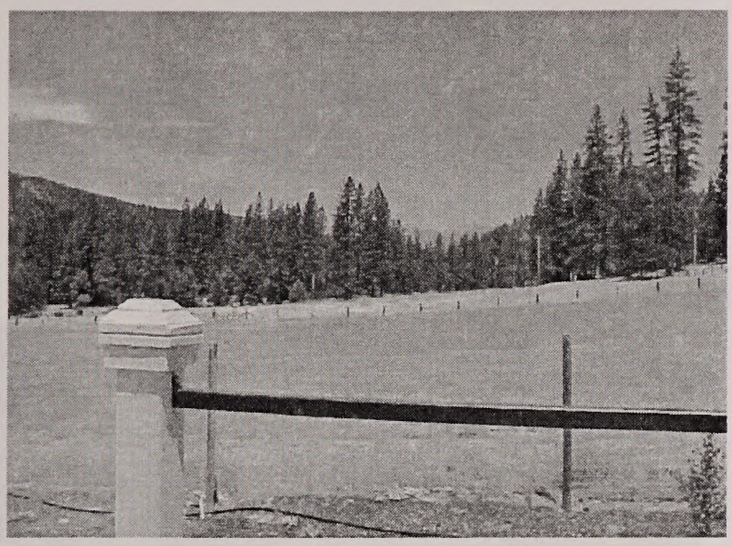


Photo 1. Eastern Residence Unit
Looking directly north toward Salt Flat Road from the Harris residence. VAU#1; KOP#1.

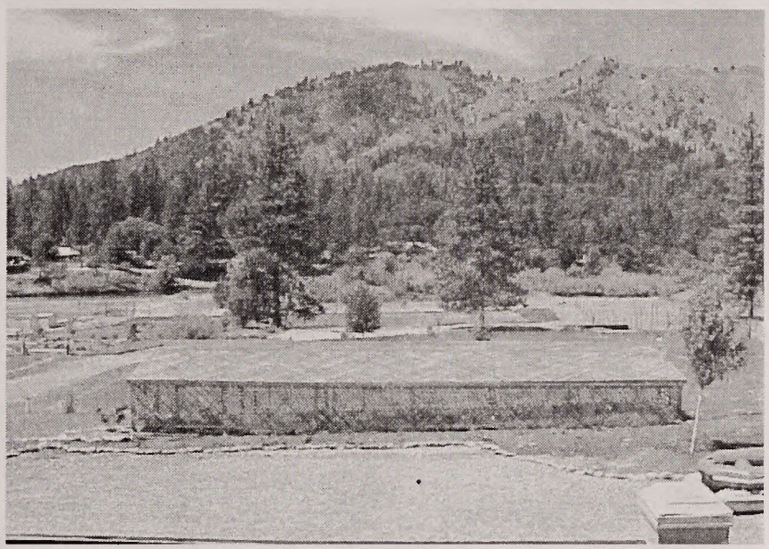


Photo 2. Eastern Residence Unit
Looking directly west toward the Trinity River (downstream) of bridge and pond, from the Harris residence. VAU#1; KOP#1.

Photo 3. Eastern Residence Unit
Looking directly west down Salt Flat Road toward the bridge, from Goose Ranch Road/lower portion of Bonk's property. VAU#1; KOP#2.

Photo 4. Eastern Residence Unit
Looking southwest toward existing Salt Flat Bridge from the residences northeast of existing bridge. VAU#1; KOP#3.

10006 - Trinity River Bridge Replacement/Graphics/Figure 3.14-3a_pg1.ai 04/07/03 VB

Figure 3.14-3a
Salt Flat Bridge
Visual Assessment Units (VAU) & Key Observation Points (KOP)

Photo 5. Eastern Residence Unit
Looking directly south toward Salt Flat Road from residences norhteast of existing bridge.
VAU#1; KOP#3.

Photo 6. Eastern Residence Unit
Looking southwest toward the existing bridge from the Huntington property. VAU#1; KOP#4.

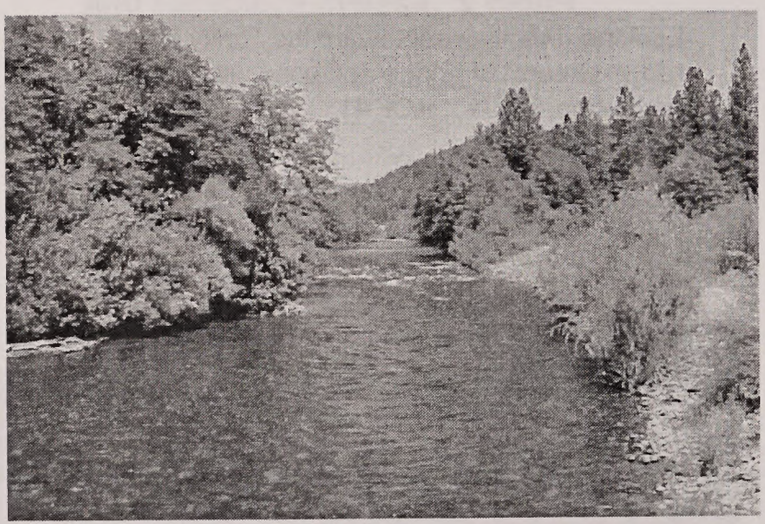


Photo 7. Salt Flat Bridge Unit
Looking upstream from the existing bridge.
VAU#2; KOP#5.

Photo 8. Salt Flat Bridge Unit
Looking southeast (downstream) toward the center island community from the existing bridge.
VAU#2; KOP#6.

Figure 3.14-3a
Salt Flat Bridge
Visual Assessment Units (VAU) & Key Observation Points (KOP)

Photo 9. Salt Flat Bridge Unit
Looking southeast (downstream) toward the east river bank from the existing bridge. VAU#2; KOP#6.

Photo 10. Salt Flat Bridge Unit
Looking southwest (downstream) toward the west river bank from the existing bridge. VAU#2; KOP#6.

Photo 11. Western Residence Unit
Looking upstream from just downstream of the existing bridge (northeastern edge of Richards property). VAU#3; KOP#7.

10006 - Trinity River Bridge Replacement/Graphics/Figure 3.14-3a_pg3.ai 03/24/03 VB

Figure 3.14-3a
Salt Flat Bridge
Visual Assessment Units (VAU) & Key Observation Points (KOP)

Photo 12. Western Residence Unit
Looking northeast (upstream) toward bridge from just east of Richards residence. VAU#3; KOP#7.

Photo 13. Western Residence Unit
Looking north (upstream) from the edge of the Gustavason property. VAU#3; KOP#8.

Photo 14. Western Residence Unit
Looking north (upstream) toward the existing bridge (obscured by fallen alder in center) from edge of Rock's property. VAU#3; KOP#9.

10006 - Trinity River Bridge Replacement/Graphics/Figure 3.14-3a_pg4.ai 04/07/03 VB

Bucktail

Four VAUs were identified in the project area due to their orientation to the Bucktail Bridge and land uses in each unit (**Figure 3.14-2b**). Bucktail Bridge is a common feature to all four VAUs.

VAU #1: BLM Gravel Pit Unit

The BLM Gravel Pit Unit consists of the BLM-owned parcel located to the northeast of Bucktail Bridge. The Unit boundary to the east is the BLM public access road, to the west is the Trinity River, to the south is Browns Mountain Road, and to the north is the first river bend. This VAU contains a large gravel pit, an artifact of gold dredging activities. The remainder of the VAU consists of a well-developed montane riparian corridor and clumps of montane hardwood conifer vegetation. This VAU provides public access to the Trinity River.

The views from the gravel pit component of the BLM Gravel Pit Unit are open and expansive (**Figure 3.14-3b**); Trinity River, Bucktail Bridge, and the surrounding mountains dominate. Other views within the BLM-owned portion of the VAU are limited to the surrounding vegetation, the public access road, the gravel pit and, to a lesser extent, the surrounding mountains. One KOP (KOP #1) occurs in this VAU; views looking west from the eastern Browns Mountain Road curve across Bucktail Bridge are dominated by the roadway, the bridge, and the surrounding mountains. Users who experience this view include motorist (local residents and members of the general public) and recreationists (particularly bicyclists and pedestrians).

VAU #2: Bucktail Downstream Unit

The Bucktail Downstream Unit is bounded by Bucktail bridge to the north, the first river bend to the south, and the east and west banks of the Trinity River downstream of the bridge. This VAU contains a public access point and is a popular fishing destination. The Trinity River portion of the Bucktail Downstream Unit is a large meander; the east side of the VAU consists of a public restroom on a small vehicle turnout that abuts an eroding terrace alluvial deposit. Montane hardwood conifer vegetation dominates this eroding slope; further downstream a dense riparian corridor develops adjacent to the river. A point bar with a dense montane riparian community is the dominant feature downstream of Bucktail Bridge. This bar is a popular fishing destination in conjunction with Bucktail Hole.

Views from the vehicle turnout/public restroom (KOP #2) looking downstream (south) are dominated by the surrounding mountains, the Trinity River, and the riparian corridor. Looking upstream (north) toward the bridge from the point bar (KOP #3), views are dominated by the river, the bridge, and the surrounding mixed-conifer vegetation.

VAU #3: Western Browns Mountain Road Unit

The Western Browns Mountain Road Unit is the area located to the west of Bucktail Bridge. It is bounded on the west side by Salmon Road, on the south and east by the Trinity River, and on the north, by a local residence. The Western Browns Mountain Road Unit consists of private single-family residences, Browns Mountain Road, and a small portion of BLM land with public access.

Five KOPs occur in the Western Browns Mountain Road Unit. Views from the residences northwest of the bridge (KOP #4) are dominated by the Trinity River and the berm in the foreground, the mountains and coniferous vegetation in the background, and the Bucktail Bridge. Browns Mountain Road is a minor component of the view. Views from the Trinity River, looking downstream toward the bridge (KOP #5) are dominated by the Trinity River, the bridge structure, and the surrounding upland vegetation and mountains. Views from the residences to the west of

the bridge (KOP #6) are dominated by Browns Mountain Road, several residences, and the surrounding mixed-conifer uplands. Views from the existing culvert located west of the existing bridge are dominated by upland vegetation to the north; and Browns Mountain Road and BLM lands to the west (KOP#7); wetland vegetation to the south; and Browns Mountain Road and BLM lands to the east (KOP# 8).

VAU #4: Bucktail Bridge Unit

Views from the Bucktail Bridge (KOPs #9, #10) are dominated by the Trinity River and surrounding mountains to the north and by the Trinity River, riparian vegetation, and surrounding mountains to the south. Views to the east and west are dominated by Browns Mountain Road and the surrounding upland vegetation. Motorist and recreationists (including residents and visitors) commonly experience these views from Bucktail Bridge.

Table 3.14-2 summarizes the KOPS in the Bucktail Bridge Project area.

TABLE 3.14-2
KEY OBSERVATION POINTS IN THE BUCKTAIL BRIDGE PROJECT AREA

VAU #	KOP #	Figure #	Description of Key Observation Point
1	1	3.14-2b; 3.14-3b	Looking west across the bridge from the roadway approach (**Photos 1, 2**)
2	2	3.14-2b; 3.14-3b	Looking south (downstream) from the upper vehicle turnout/public access (**Photo 3**)
2	3	3.14-2b; 3.14-3b	Looking north (upstream) from the perspective of an angler or boater downstream (**Photo 4**)
3	4	3.14-2b; 3.14-3b	Looking south (downstream) and toward the bridge from the residences that are northwest of the bridge (**Photo 5**)
3	5	3.14-2b; 3.14-3b	Looking downstream toward the bridge from perspective of an upstream angler or boater (**Photo 6**)
3	6	3.14-2b; 3.14-3b	Looking east toward the bridge from the residences to the west of the bridge (**Photo 7**)
3	7	3.14-2b; 3.14-3b	Looking north and west from atop the existing culvert located to the west of existing bridge (**Photos 8, 9**)
3	8	3.14-2b; 3.14-3b	Looking south and east from atop the existing culvert located to the west of existing bridge (**Photos 10, 11**)
4	9	3.14-2b; 3.14-3b	Looking north (upstream) from the bridge (**Photos 12, 14**)
4	10	3.14-2b; 3.14-3b	Looking south (downstream) from the bridge (**Photos 3, 15, 16**)

Poker Bar

Three VAUs were identified in the project area due to their orientation to the Poker Bar bridges and the landscape characteristics in each unit (**Figure 3.14-2c**). The Poker Bar Bridges are a common feature to all three VAUs.

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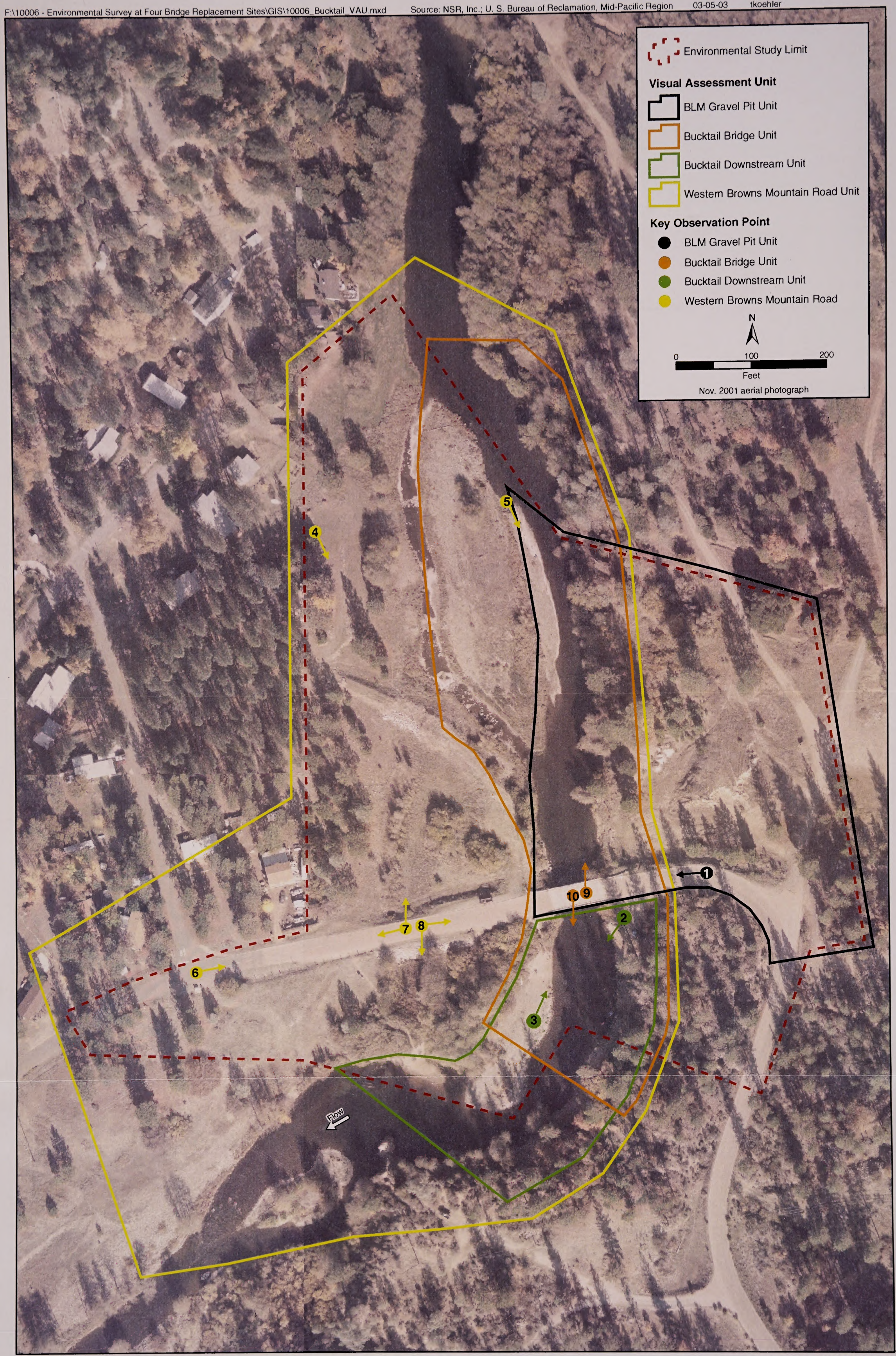
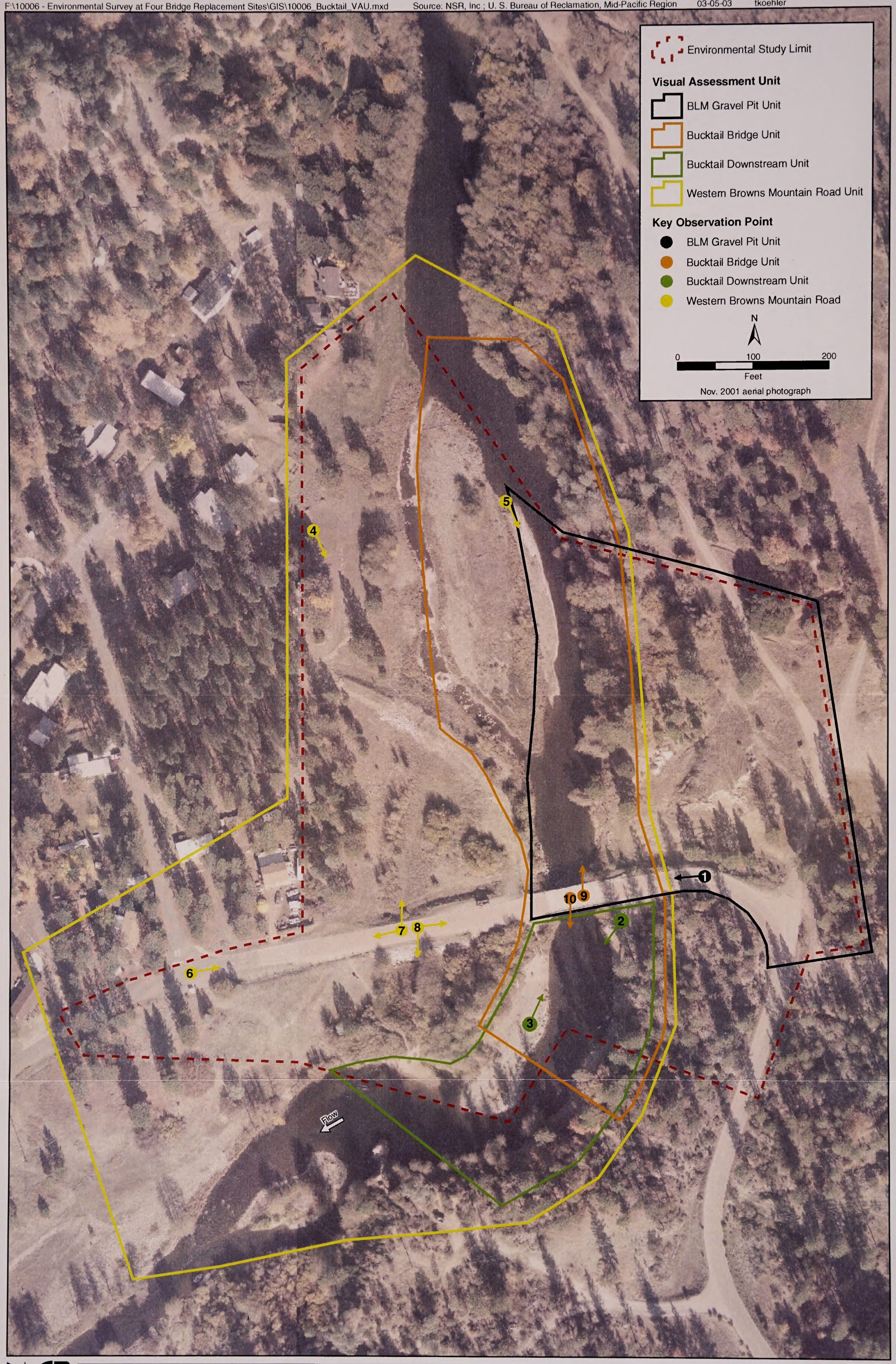


Trinity River Bridges Project

North State Resources, Inc.

Figure 3.14-2b
Bucktail Bridge
Visual Assessment Units & Key Observation Points

F:\10006 - Environmental Survey at Four Bridge Replacement Sites\GIS\10006_Bucktail_VAU.mxd Source: NSR, Inc.; U. S. Bureau of Reclamation, Mid-Pacific Region 03-05-03 tkoehler



Trinity River Bridges Project

North State Resources, Inc.

Figure 3.14-2b
Bucktail Bridge
Visual Assessment Units & Key Observation Points

Photo 1. Gravel Pit Unit
Looking west across the bridge from the eastern roadway approach (note how bridge blends into the roadway component). VAU#1; KOP#1.

Photo 2. Gravel Pit Unit
Looking northwest from the roadway toward the existing berm and Trinity River, slightly upstream of the existing bridge. VAU#1; KOP#1.

Photo 3. Bucktail Downstream Unit
Looking south (downstream) from the public restroom/parking area just east of the existing bridge. VAU#2; KOP#2.

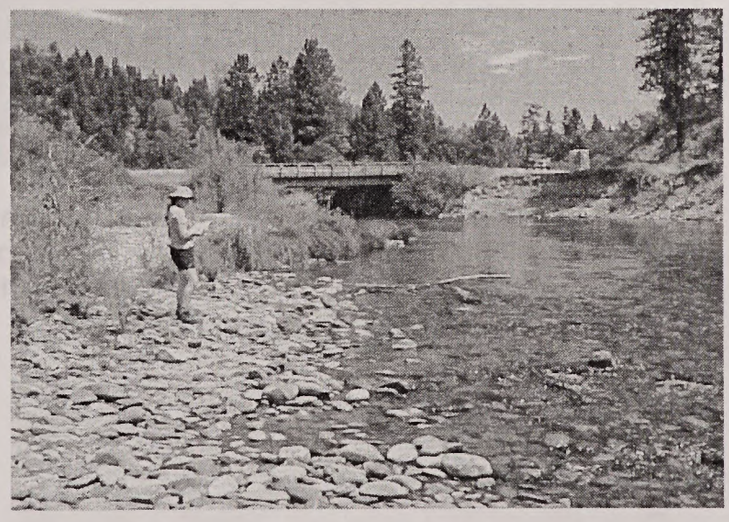


Photo 4. Bucktail Downstream Unit
Looking upstream toward the existing bridge, from Bucktail Hole (the perspective of anglers, as this is a popular fishing spot). VAU#2; KOP#3.

10006 - Trinity River Bridge Replacement/Graphics/Figure 3.14-3b_pg1.ai 04/07/03 VB

Figure 3.14-3b
Bucktail Bridge
Visual Assessment Units (VAU) & Key Observation Points (KOP)

Photo 5. Western Browns Mountain Road Unit
Looking downstream toward existing bridge from residences located northwest of the structure. VAU#3; KOP#4.

Photo 6. Western Browns Mountain Road Unit
Looking downstream toward the existing bridge (recreationist perspective). VAU#3; KOP#5.

Photo 7. Western Browns Mountain Road Unit
Looking east toward the existing bridge from residences located west of the bridge (note how bridge blends with roadway). VAU#3; KOP#6.

Photo 8. Western Browns Mountain Road Unit
Standing on existing culvert located west of bridge, looking north. VAU#3; KOP#7.

10006 - Trinity River Bridge Replacement/Graphics/Figure 3.14-3b_pg2.ai 04/07/03 VB

Figure 3.14-3b
Bucktail Bridge
Visual Assessment Units (VAU) & Key Observation Points (KOP)

Photo 9. Western Browns Mountain Road Unit
Standing on existing culvert located west of bridge, looking west toward the Browns Mountain Rd./Salmon Rd. intersection (on right). VAU#3; KOP#7.

Photo 10. Western Browns Mountain Road Unit
Standing on existing culvert located west of bridge, looking south toward existing wetland. VAU#3; KOP#8.

Photo 11. Western Browns Mountain Road Unit
Standing on existing culvert located west of bridge, looking east toward the existing bridge. VAU#3; KOP#8.

Photo 12. Bucktail Bridge Unit
Looking north (upstream) from the existing bridge. VAU#4; KOP#9.

10006 - Trinity River Bridge Replacement/Graphics/Figure 3.14-3b_pg3.ai 04/07/03 VB

Figure 3.14-3b
Bucktail Bridge
Visual Assessment Units (VAU) & Key Observation Points (KOP)

Photo 13. Bucktail Bridge Unit
Looking northwest from existing bridge structure toward west bank of Trinity River and residences located northwest of bridge. VAU#4; KOP#9.

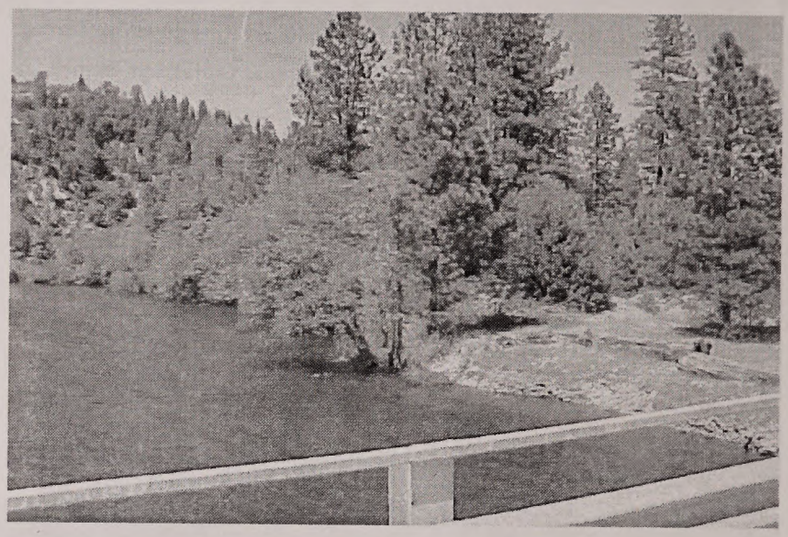


Photo 14. Bucktail Bridge Unit
Looking northeast from existing bridge structure toward east bank of Trinity River (BLM lands). VAU#4; KOP#9.

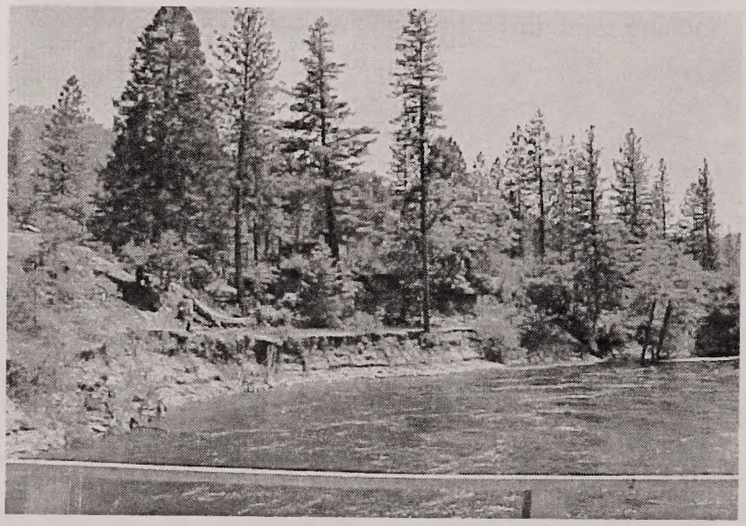


Photo 15. Bucktail Bridge Unit
Looking south (downstream) from existing bridge toward east bank of Trinity River. VAU#4; KOP#10.

Photo 16. Bucktail Bridge Unit
Looking south (downstream) from existing bridge toward west bank of Trinity River and Bucktail Hole. VAU#4; KOP#10.

10006 - Trinity River Bridge Replacement/Graphics/Figure 3.14-3b_pg4.ai 04/07/03 VB

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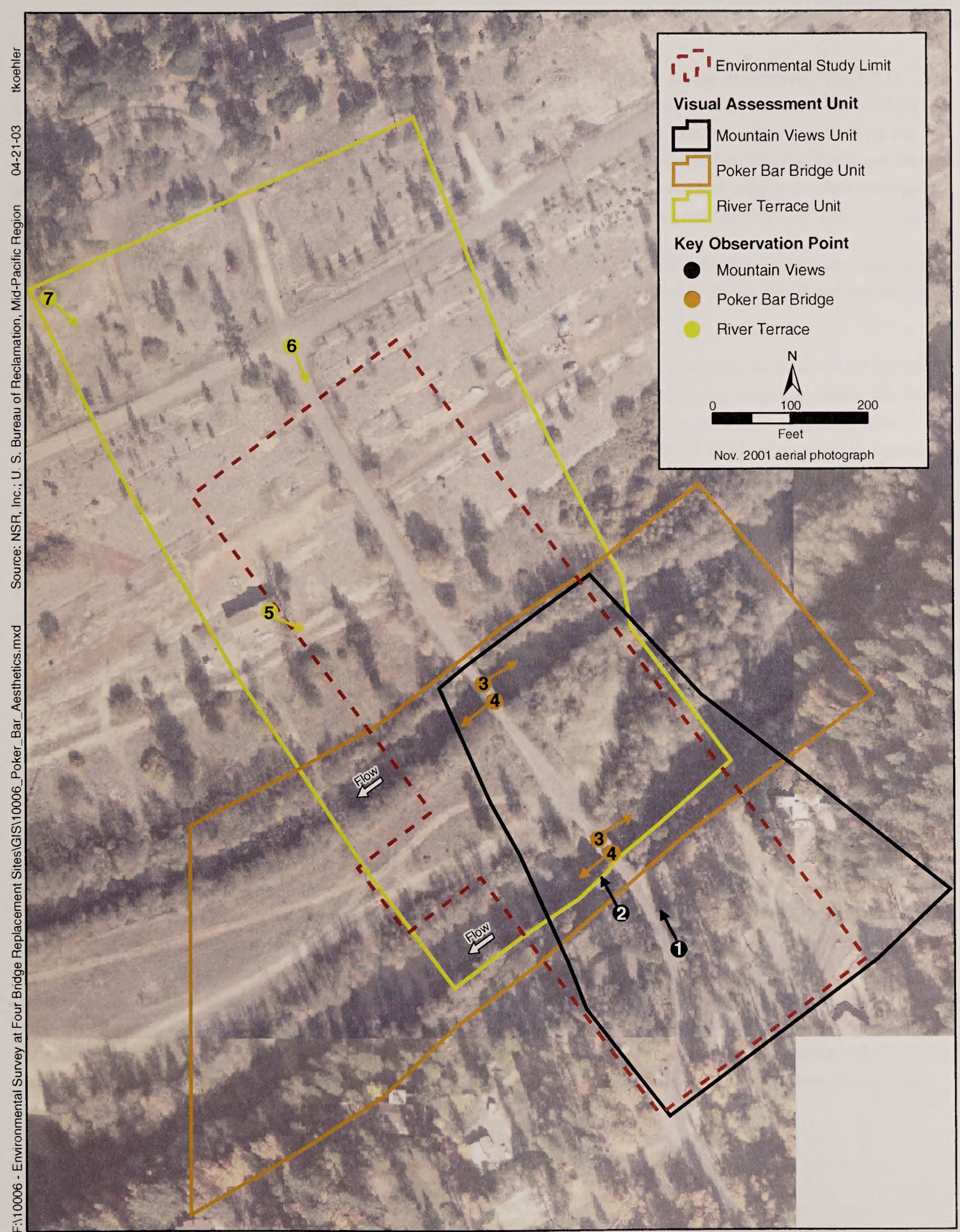
Figure 3.14-3b
Bucktail Bridge
Visual Assessment Units (VAU) & Key Observation Points (KOP)



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North State Resources, Inc.

Trinity River Bridges Project

Figure 3.14-2c
Poker Bar Bridges
Visual Assessment Units & Key Observation Points

VAU #1: Mountain Views Unit

The Mountain Views Unit includes the hillslope to the southeast of the Poker Bar bridge structures. The VAU boundaries are the Poker Bar Bridges to the northwest, the approach roadway curve to the southeast, the cutslope to the west, and the residences to the east. Topography consists of a 30-60 percent mountain slope overlooking the Trinity River and Poker Bar community. Several private single-family residences occur within the VAU boundaries, and a large portion of the Unit has been cleared for residential development. The natural vegetation that remains on the upland hillslope is mixed-conifer, with a narrow riparian corridor present along the banks of the Trinity River.

The views from this upland area are expansive from certain vantage points (**Figure 3.14-3c**). Views are dominated by the forested mountains, the riparian corridor, and, to a lesser extent, the Trinity River. Poker Bar Road and Bridges are minor components of the overall view from most vantage points.

Two KOPs have been identified in the Mountain Views Unit. The view from the approach roadway (KOP #1) is dominated by Bridge Road and Poker Bar Bridges, the riparian corridor, and the opposite mountain slope. As this is a privately owned road and bridge, motorist who might experience this view would be predominantly Poker Bar residents and their guests. The view from the cutslope adjacent to Bridge Road (KOP #2) is dominated by riparian vegetation, the opposite mountain slopes, and to a lesser extent the Trinity River, Bridge Road, and Poker Bar Bridges. This point is within the area proposed for project activities.

VAU #2: Poker Bar Bridge Unit

The Poker Bar Bridge Unit is bounded by the bridge limits to the southeast and northwest and by river bends to the north and south. This VAU consists of the Trinity River within the project area and the bridge structures. Views in the Poker Bar Bridge Unit are dominated by the Trinity River, the densely vegetated riparian corridor, the surrounding mountains, and the bridges. Motorist and river recreationists are the groups who experience this view (KOPs #3, #4). Because the Poker Bar Bridges are privately owned and this stretch of the Trinity River has no public access, viewers in the Poker Bar Bridge Unit consist mainly of residents and their guests, and some boating recreation.

VAU #3: River Terrace Unit

The River Terrace Unit is located to the northwest of the Poker Bar bridge structures. It consists of the area flanked on the northwest side by the mountain slope, on the east by edge of the project study limits, on the southeast by the bridge structure and the Trinity River, and on the west by the Ross residence. This VAU consists of the flat terrace deposit area of the Poker Bar community. Much of the land has been cleared for residential and road development. The vegetation that does exist is a landscape mix of native and ornamental and invasive vegetation. River Terrace Unit views are limited because a well-developed riparian corridor obscures the river from view. The bridge and roadway are visible from parcels adjacent the roadway. Views from the Ross property are dominated by the surrounding mountains, riparian vegetation, and to a lesser extent the roadway and bridges (KOP #5). Views from Poker Bar Road looking southeast include the surrounding mountains, the roadway and bridges, the riparian corridor, and the flat terrace deposits (KOP#6). Views from the residences along the northeastern Unit boundary (KOP #7) are dominated by the flat terrace deposits, the surrounding mountains, the Ross residence, and to a lesser extent, Poker Bar Road as it cuts across the opposite mountain and the riparian corridor.

Table 3.14-3 summarizes the KOPs in the Poker Bar Bridges Project area.

TABLE 3.14-3
KEY OBSERVATION POINTS IN THE POKER BAR BRIDGES PROJECT AREA

VAU #	KOP #	Figure #	Description of Key Observation Point
1	1	3.14-2c; 3.14-3c	Highway views looking northwest across bridges from the upper roadway approach curve (**Photo 1**); looking northwest from Bridge 1 to Bridge 2 (**Photo 2**); looking east and west past (north) bridge
1	2	3.14-2c; 3.14-3c	Looking northwest from atop the high cutbank adjacent to the upper roadway toward the bridge (**Photo 3**)
1	3	3.14-2c; 3.14-3c	Looking northeast (upstream) from Bridge 2 (**Photo 4**) and Bridge 1 (**Photo 5**)
2	4	3.14-2c; 3.14-3c	Looking downstream from Bridge 1 (southeasternmost bridge) (**Photo 6**) and from Bridge 2 (**Photo 7**)
3	5	3.14-2c; 3.14-3c	Looking southeast toward the bridge from the Ross property (closest house to the river and current/future bridges sites) (**Photo 8**)
3	6	3.14-2c; 3.14-3c	Looking southeast across the bridges from the northern roadway approach (**Photo 9**); looking east and west before (north) bridge
3	7	3.14-2c; 3.14-3c	Highway view looking southeast toward the bridges and the Ross residence, from the residences to the northwest (**Photo 10**)

Biggers Road

Three VAUs were identified in the project area due to their orientation to Biggers Road Bridge and landscape characteristics of each unit (**Figure 3.14-2d**). Biggers Road Bridge is a common feature to all three VAUs.

VAU #1: Steel Bridge Road Unit

The Steel Bridge Road Unit is located to the east of the Biggers Road Bridge structure. VAU boundaries are the roadway curves to the north and south, the road itself to the east, and the Trinity River and Biggers Road entrance to the west; essentially, the Steel Bridge Road Unit consists of that portion of Steel Bridge Road adjacent to and within the project study limits. Views to the north and south consist of the roadway, the surrounding mountains, the cutslope, and the riparian corridor (**Figure 3.14-3d**). Views to the east and west are limited due to the steep (60-90 percent slopes) cutslope on the east side of the road and the moderately vegetated riparian corridor along the Trinity River. During the summer months, the Trinity River is only partially visible through the trees; visibility improves to the north along Steel Bridge Road. The only clear view of the bridge is at the entrance to Biggers Road/Biggers Road Bridge. After deciduous trees shed their leaves, the river and bridge are visible from several locations along Steel Bridge Road.

Three KOPs were identified within the Steel Bridge Road Unit: views from Steel Bridge Road looking north (KOP #1), views from the entrance to Biggers Road (looking west) (KOP #2), and views from Steel Bridge road looking southeast and west (KOP #3) (**Table 3.14-4**).

VAU #2: Biggers Road Bridge Unit

The Biggers Road Bridge Unit is bounded by the bridge limits to the east and west and by river bends to the north and south. This VAU consists of the Trinity River within the project area and the bridge structure. Views in the Biggers Road Bridge Unit are dominated by the Trinity River, Biggers Road Bridge, the moderately to sparsely vegetated

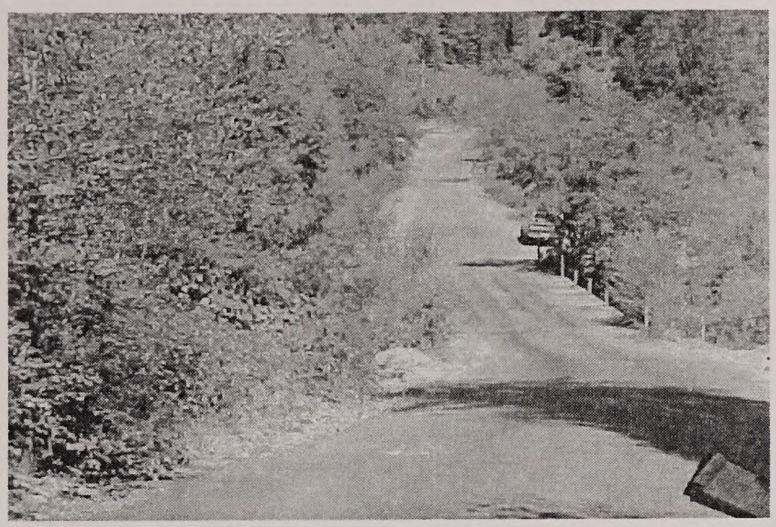

Photo 1. Mountain Views Unit
Looking northwest across existing bridges from southeastern approach roadway (southeast bridge is more distinct than northwest bridge). VAU#1; KOP#1

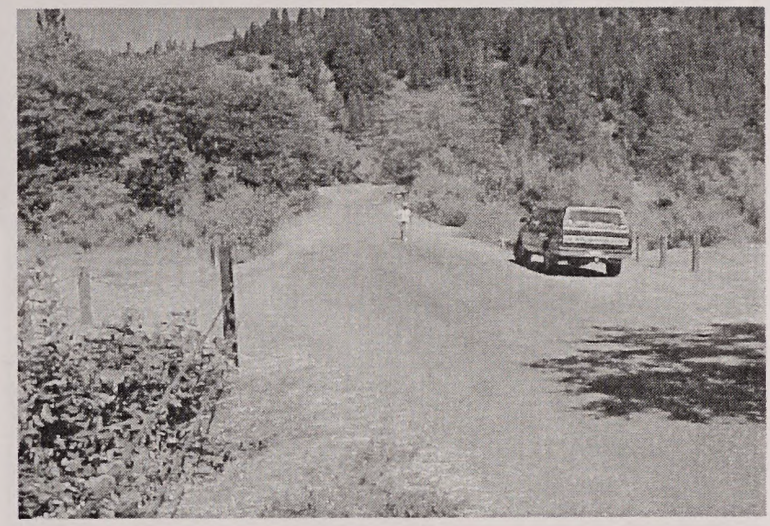

Photo 2. Mountain Views Unit
Looking northwest from southeast bridge toward northwest bridge. VAU#1; KOP#1.

Photo 3. Mountain Views Unit
Looking north toward current/proposed bridge locations from atop the cutbank (note old collapsed bridge to the right of central cottonwood). VAU#1; KOP#2.

Photo 4. Poker Bar Bridge Unit
Looking northeast (upstream) from the northwestern bridge. VAU#2; KOP#3.

Figure 3.14-3c
Poker Bar Bridges
Visual Assessment Units (VAU) & Key Observation Points (KOP)

Photo 5. Poker Bar Bridge Unit
Looking northeast (upstream) from the southeastern bridge. VAU#2; KOP#3.

Photo 6. Poker Bar Bridge Unit
Looking downstream from the southeastern bridge.VAU#2; KOP#4.

Photo 7. Poker Bar Bridge Unit
Looking downstream from the northwestern bridge. VAU#2; KOP#4.

Figure 3.14-3c
Poker Bar Bridges
Visual Assessment Units (VAU) & Key Observation Points (KOP)

Photo 8. River Terrace Unit
Looking southeast toward the existing bridges from the Ross property. VAU#3; KOP#5.

Photo 9. River Terrace Unit
Looking southeast toward the existing bridges from the northern roadway approach (note how bridge blends into the roadway). VAU#3; KOP#6.

Photo 10. River Terrace Unit
Looking southeast toward the Ross residence and existing bridges from Quad P Road and residences located northwest of the bridges. VAU#3; KOP#7.

Figure 3.14-3c
Poker Bar Bridges
Visual Assessment Units (VAU) & Key Observation Points (KOP)

riparian corridor, and the surrounding mountains. Motorist and recreational users crossing Biggers Road Bridge are the groups who experience this view (KOPs #4, #5). Because the Biggers Road Bridge is privately owned, motorists in the Biggers Road Bridge Unit consist mainly of residents and their guests. However, a day-use recreation area is located approximately two miles north (upstream) of the project site; recreationists traveling down the Trinity River would experience these views.

VAU #3: Western Residence Unit

The Western Residence Unit is located to the west of the Biggers Road bridge structure. It consists of the extent of development to the west, the Trinity River and Biggers Road Bridge to the east, the Treadwell property to the south, and the Biggers property to the north. The Western Residence Unit is privately owned; it consists of the river floodplain with sparse riparian corridor and a landscape mix of native and ornamental vegetation, private single-family residences, Biggers Road, and the surrounding mixed-conifer upland.

Two KOPs were identified in this Unit. Views from the Treadwell property (KOP #6) (the closest property to Biggers Road Bridge) are dominated by the riparian corridor and surrounding montane hardwood-conifer uplands to the east, the Trinity River, and Biggers Road Bridge. While Steel Bridge Road is mostly obscured by vegetation, traffic associated with the road is visible from the Treadwell property. Views from the Biggers residence (KOP #7) are dominated by the riparian corridor and surrounding montane hardwood-conifer uplands to the east, the flat, sparsely vegetated floodplain and driveway, and to a lesser extent the Trinity River. Steel Bridge Road and associated traffic are visible from the Biggers residence.

Table 3.14-4 summarizes the KOPs in the Biggers Road Bridge Project area.

TABLE 3.14-4
KEY OBSERVATION POINTS IN THE BIGGERS ROAD BRIDGE PROJECT AREA

VAU #	KOP #	Figure #	Description of Key Observation Point
1	1	3.14-2d; 3.14-3d	Highway view; looking northwest from the southeastern roadway approach curve (**Photo 1**); looking toward the proposed bridge site from the southeastern roadway approach (**Photo 2**)
1	2	3.14-2d; 3.14-3d	Looking across Biggers Road bridge at the Biggers Road Bridge entrance (**Photo 3**)
1	3	3.14-2d; 3.14-3d	Looking southeast from the northwestern roadway approach curve (**Photo 4**) and looking west toward the Trinity River from the northwestern roadway (**Photo 5**)
2	4	3.14-2d; 3.14-3d	Looking upstream from the bridge (**Photo 6**)
2	5	3.14-2d; 3.14-3d	Looking downstream from the bridge (**Photo 7**)
3	6	3.14-2d; 3.14-3d	Looking north (upstream) toward the bridge from the upstream edge of the Treadwell property (**Photo 8**) and from the Treadwell residence (**Photo 9**)
3	7	3.14-2d; 3.14-3d	Looking east toward the proposed bridge location from the Biggers residence (**Photo 10**)

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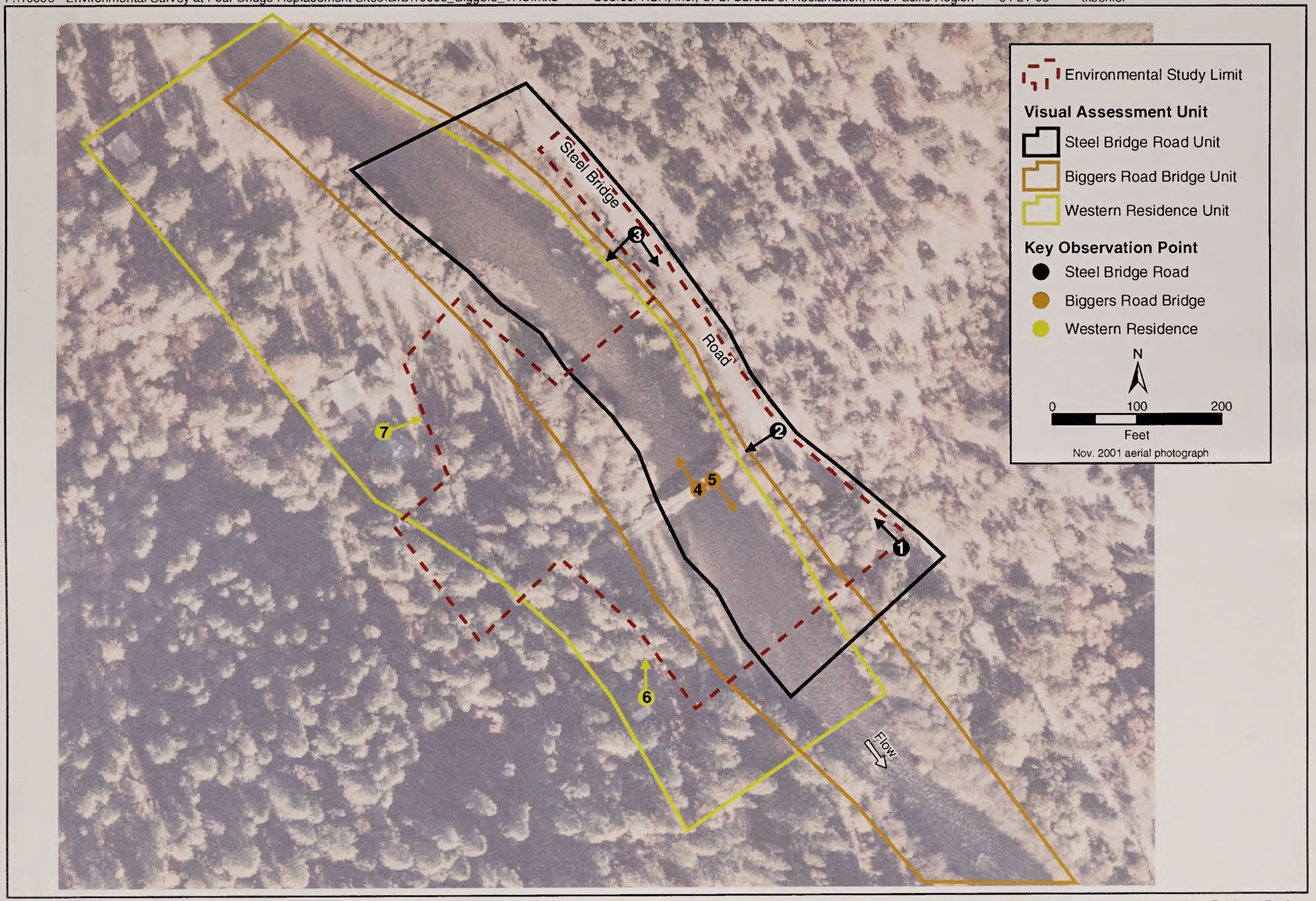

Trinity River Bridges Project

North State Resources, Inc.

Figure 3.14-2d
Biggers Road Bridge
Visual Assessment Units & Key Observation Points

Photo 1. Steel Bridge Road Unit
Looking northwest from roadway approach (Steel Bridge Road), driving north (bridge opening is at truck). VAU#1; KOP#1.

Photo 2. Steel Bridge Road Unit
Looking northwest from the southeast roadway approach (Steel Bridge Road) toward proposed bridge location (driving north). VAU#1; KOP#1.

Photo 3. Steel Bridge Road Unit
Looking southwest across existing bridge from intersection with Steel Bridge Road. VAU#1; KOP#2.

Photo 4. Steel Bridge Road Unit
Looking southeast from the northwest roadway approach (driving south). VAU#1; KOP#3.

10006 - Trinity River Bridge Replacement/Graphics/Figure 3.14-3d_pg1.ai 03/25/03 VB

Figure 3.14-3d
Biggers Road Bridge
Visual Assessment Units (VAU) & Key Observation Points (KOP)

Photo 5. Steel Bridge Road Unit
Looking west toward the Trinity River from the northwestern roadway approach (driving south on Steel Bridge Road). VAU#1; KOP#3.

Photo 6. Biggers Road Bridge Unit
Looking north (upstream) from the existing bridge. VAU#2; KOP#4.

Photo 7. Biggers Road Bridge Unit
Looking south (downstream) from the existing bridge. VAU#2; KOP#5.

10006 - Trinity River Bridge Replacement/Graphics/Figure 3.14-3d_pg2.ai 03/25/03 VB

Figure 3.14-3d
Biggers Road Bridge
Visual Assessment Units (VAU) & Key Observation Points (KOP)

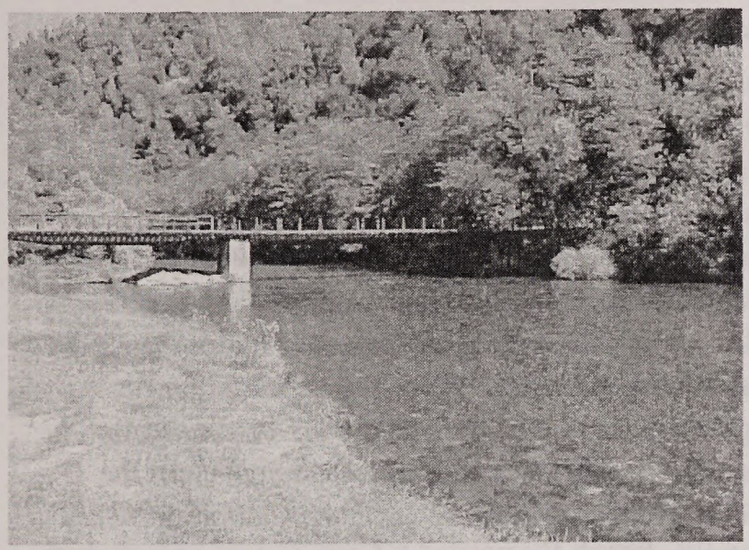

Photo 8. Western Residence Unit
Looking north (upstream) from edge of Treadwell property. VAU#3; KOP#6.

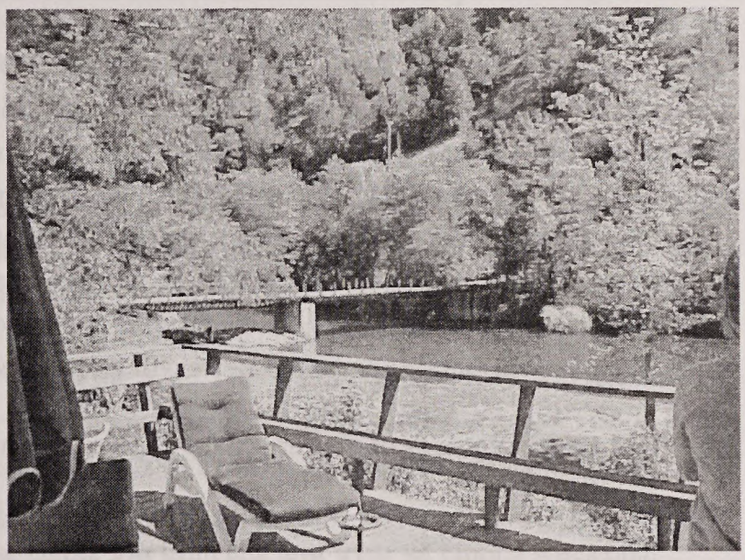

Photo 9. Western Residence Unit
Looking northeast (upstream) from Treadwell residence (view of existing bridge from deck). VAU#3; KOP#6.

Photo 10. Western Residence Unit
Looking east from the Biggers residence toward proposed bridge location (upstream of existing bridge). VAU#3; KOP#7.

10006 - Trinity River Bridge Replacement/Graphics/Figure 3.14-3d-pg3.ai 03/25/03 VB

Figure 3.14-3d
Biggers Road Bridge
Visual Assessment Units (VAU) & Key Observation Points (KOP)

3.14.2 REGULATORY FRAMEWORK

Federal and State

National Wild and Scenic Rivers Act of 1968

Congress enacted the National WSRA in 1968 in an effort to protect free-flowing rivers with "outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values." The entire mainstem of the Trinity River was designated a National Wild and Scenic River by the Secretary of Interior in 1981, primarily because of the river's anadromous fishery. In addition, the reach of the river downstream from Lewiston Dam was classified as having distinctive scenic quality and high viewer sensitivity during peak flows (the scenic qualities of the river are enhanced). Approximately 97.5 miles of the river are classified as recreational under the federal WSRA. The mainstem Trinity River is also classified as recreational and scenic under the California WSRA. State management requirements and restrictions are similar to those of the federal system.

For projects on the Trinity River, the BLM is responsible for ensuring that the scenic values of public lands are considered before allowing uses that may have negative visual impacts. The BLM accomplishes this through its VRM system, a system for minimizing the visual impacts of surface-disturbing activities to scenic public lands and maintaining scenic values for the future. The VRM system consists of two stages, inventory and analysis. The inventory stage involves identifying the visual resources of an area and assigning them to inventory classes using the BLM's visual resource inventory process. The analysis stage involves determining whether the potential visual impacts from proposed surface-disturbing activities or developments will meet the management objectives established for the area, or whether design adjustments will be required (BLM 2002a).

The VRM system consists of four inventory classes. Each inventory class has distinct management objectives:

- **Class I Objective:** To preserve the existing character of the landscape. The level of change to the characteristic landscape should be very low and must not attract attention.
- **Class II Objective:** To retain the existing character of the landscape. The level of change to the characteristic landscape should be low.
- **Class III Objective:** To partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate.
- **Class IV Objective:** To provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high.

The Trinity River corridor is classified as VRM Class II. The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape (BLM 2002b).

Under the California WSRA, the segment of the Trinity River associated with the Trinity River Bridges Project is designated as "scenic" and "recreational." The *California Public Resources Code* (5093.53[b]) defines "scenic rivers" as being "those rivers or segments of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads." "Recreational rivers" are defined in the *California Public Resources Code* (5093.53[c]) as being "those rivers or segments of rivers that are

readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment of division in the past. There are no permits required specifically for under the California WSRA. However, CDFG 1601/1603 Streambed Alteration Agreements on Wild and Scenic Rivers are reviewed by the Resources Agency for consistency with the California WSRA, and additional conditions may be placed on the Agreement for consistency with the WSRA. In conjunction the federal WSRA, other permits or agreements may be required to comply with other laws. While there are no separate reporting requirements to address wild and scenic rivers, the environmental document shall discuss the issue, summarize coordination among participating agencies, evaluate impacts to qualities that support the river's designation, and propose suitable mitigation measures as warranted.

Appendix G provides the analysis and determination necessary to comply with Section 7 of the WSRA. These may include the Clean Water Act Section 404 Permit, 401 Certification, NPDES Permit, Fish and Game Code Section 1601 Streambed Alteration Agreement, or ESA Section 7 Consultation for endangered species that would be affected.

Local

Trinity County General Plan Goals and Objectives

The Trinity County General Plan contains goals and policies designed to guide the future physical development of the County, based on current conditions. The General Plan contains all the state-required elements, including community development and design, transportation, natural resources, health and safety, noise, housing, recreation, economic development, public facilities and services, and air quality. The Trinity County General Plan does not specifically address visual resources. However, certain goals identified within the context of other plan elements are relevant to visual resources. The following goals and policies, relative to aesthetic issues associated with the project study area, were taken from the applicable elements of the General Plan (County 2001). This includes the Lewiston Community Plan (County 1986) and the Douglas City Plan (County 1987).

County Wide Goals and Objectives

Cultural

Goal: To retain the rural character of Trinity County:

- By encouraging uses that fit with the land.

Natural Resource Lands

Goal: To protect the scenic natural resources of Trinity County and preserve areas that are important as commercial natural resources for future generations.

- Preserve areas of established natural scenic beauty as areas of active and passive enjoyment.

Scenic Lands

Goal: To conserve, preserve, and maintain the scenic beauty of Trinity County.

- Encourage private developers to utilize conservation methods of using or developing the land. Discourage development on steep slopes unless special techniques of construction are used.
- Acquire scenic easements for conservation of Trinity County's scenic beauty.

- Adopt stringent regulations requiring the landscaping and maintenance of vegetation on cut and fill slopes as required by the appropriate agency.
- Control encroachment of cut and fill slopes into scenic easement areas or corridors along scenic highways, whether State or County.

Lewiston Community Plan Goals and Objectives

This plan includes the area centered on the Trinity River from Lewiston Lake to slightly downstream of the confluence of Grass Valley Creek and the Trinity River. Project sites within the planning area include Salt Flat and Bucktail.

Natural Resources

Goal: To protect areas of special habitat considerations within the Plan area.

- Encourage retention of riparian habitat areas.
- Work with property owners adjacent to the Trinity River to retain existing riparian vegetation.

Goal: To protect and improve fish habitat within the Plan area.

- Encourage the development of stream restoration projects within the Plan Area.

Goal: To retain the quiet unobtrusive nature of development in the Plan Area.

Community Design

Goal: To retain and enhance the overall high visual quality of the Plan Area.

- Designating portions of Trinity Dam Blvd., Buckeye Creek Road, and Rush Creek Road as Scenic Roadways.
- Review future development for impact on the visual qualities on the Trinity River.

Douglas City Community Plan

This plan includes the area centered on the Trinity River from Grass Valley Creek to slightly downstream of Steiner Flat. Project sites within the planning area include Poker Bar and Biggers Road bridge sites.

Community Design

Goal: Retain and enhance the overall high visual quality of the Plan Area.

- Review future development within the quarter miles of the Trinity River for impact of the visual qualities of the Trinity River.

Project Consistency with the Trinity County General Plan and Community Plans

As described in Chapter 1, Introduction, the proposed Trinity Bridges Project would:

- Provide safe and reasonable year-round access to parcels of land served by the Salt Flat, Bucktail, Poker Bar and Biggers Road bridges across the Trinity River.

- Allow dam operators maximum flexibility to provide instream flow releases from Lewiston Dam adequate to meet the fishery and geomorphic flow needs for the mainstem Trinity River and to fulfill the Trinity River TMDL for sediment and restore the coldwater fishery beneficial use.

The following project objectives apply to the project's lead/responsible agencies for CEQA purposes:

- Minimize the threat to public safety and potential damage to property posed by the existing high likelihood of flooding
- Provide maximum flexibility for implementing a variety of potential Trinity River fishery flow alternatives, as well as other flow alternatives outside the ROD such as increasing dam releases during periods of high downstream tributary inflows
- Allow for high-efficiency sediment transport in the Trinity River to maximize the amount of sediment transported on a per acre-foot basis so that Trinity River can be removed from California's Clean Water Act Section 303(d) Impaired Waterbodies List, while minimizing the total amount of water necessary to transport sediment through the river system
- Provide maximum flexibility for operations of the TRD during periods of high runoff and flooding which could result in increased water in storage available for multiple beneficial uses (i.e., fisheries, recreation, water supply, water quality and power production)
- Provide alternative access on a short-term basis during project implementation
- Recovery of fish and wildlife resources that are listed as threatened and endangered

The following objectives apply to the projects responsible and trustee agencies, including the HVT, NCRWQCB, the SLC, the CDFG, and the SWRCB:

- Comply with the Water Code to ensure the highest reasonable quality of waters of the state and allocate those waters to achieve the optimum balance of beneficial uses
- Protect the public trust assets of the Trinity River watershed
- Protect, conserve, restore, and manage fish, wildlife, and native plant resources
- Comply with the Water Quality Control Plan for the Hoopa Valley Indian Reservation to preserve and enhance water quality on the Reservation, and to protect the beneficial uses of water.

These project objectives are consistent with the applicable general plan goals and policies summarized above.

3.14.3 Environmental Consequences/Impacts and Mitigation Measures

Methodology

The analysis in this section is based in part on Appendix G of the *CEQA Guidelines*, which is a sample IS Checklist that includes a number of questions relating to potential aesthetic effects, and in part of professional judgment. The County, as CEQA lead agency, has used these IS questions and such professional judgment in formulating significance thresholds. Using these thresholds, the analysis evaluates the project's impact on the visual character of the area, particularly the key viewpoints identified in this section. This is a qualitative assessment that evaluates the proposed bridges in relation to the local aesthetic context. A review of project consistency with federal and state Wild and Scenic River designations is also presented in **Appendix G.**

Significance Criteria

The Project would have a significant impact if it would

- obstruct a scenic view from public viewing areas;
- have a substantial adverse effect on a scenic vista;
- substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- substantially degrade the existing visual character or quality of the project site and its surroundings;
- introduce physical features that are substantially out of character with adjacent residential areas;
- alter the site so that the scale or degree of change appears as a substantial, obvious, and disharmonious modification of the overall scene (to the extent that it clearly dominates the view);
- create substantial daytime glare associated with new construction;
- disrupt adjacent residential areas from new night-time lighting;
- create a new source of substantial light or glare that would adversely affect day or nighttime views in the project area;
- be inconsistent with the policies of the Trinity County General Plan relating to aesthetics; or
- be inconsistent with the goals and objectives of both the federal and state WSRAs with regards to the Trinity River.

Impacts and Mitigation Measures

Table 3.14-5 summarizes the potential aesthetic impacts resulting from construction and operation of the proposed Project.

TABLE 3.14-5
SUMMARY OF AESTHETIC IMPACTS FROM THE PROPOSED TRINITY RIVER BRIDGES PROJECT

Impact	Project Site	No-Action Alternative	Proposed Action	Alternative 1	Alternative 2
1. Construction of the new bridge structures for the proposed Trinity River Bridges Project could result in the degradation and/or obstruction of a scenic view from key viewing areas.	Salt Flat	NI	S	S	S
	Bucktail	NI	S	S	N/A
	Poker Bar	NI	S	S	N/A
	Biggers Road	NI	S	S	N/A
2. Construction of the new bridge structures for the proposed Trinity River Bridges Project could be substantially out of character or disharmonious with existing land uses and aesthetic features.	Salt Flat	NI	LS	LS	LS
	Bucktail	NI	LS	LS	N/A
	Poker Bar	NI	LS	LS	N/A
	Biggers Road	NI	LS	LS	N/A
3. The proposed Trinity River Bridges Project may be inconsistent with federal and/or state Wild and Scenic River Act requirements.	Salt Flat	NI	LS	LS	LS
	Bucktail	NI	LS	LS	N/A
	Poker Bar	NI	LS	LS	N/A
	Biggers Road	NI	LS	LS	N/A
4. The proposed Trinity River Bridges Project may potentially generate increased daytime glare and/or nighttime lighting.	Salt Flat	NI	S	S	S
	Bucktail	NI	LS	LS	N/A
	Poker Bar	NI	LS	LS	N/A
	Biggers Road	NI	LS	LS	N/A

Notes:

LS = Less than Significant S = Significant NI = No Impact SU = Significant Unavoidable
N/A = Not Applicable

Salt Flat Bridge

Impact 3.14-1: Construction of the new bridge structures for the proposed Trinity River Bridges Project could result in the degradation and/or obstruction of a scenic view from key viewing areas. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, no degradation or obstruction of a scenic view from key viewing areas would occur because the new bridge would not be constructed at the Salt Flat site.

Proposed Action (Replacement Downstream, Private Ownership)

As discussed previously in this section, the Salt Flat site includes three distinct VAUs. The potential effects of the Proposed Action on key public viewing areas are discussed below by VAU.

VAU # 1: Eastern Residence Unit

The Eastern Residence Unit VAU includes four distinct key viewing areas, as described previously in this section. Views from Salt Flat Road and from the residences located northeast of the existing bridge, looking west and southwest towards the Trinity River and existing Salt Flat Bridge, would be most sensitive to temporary visual impacts associated with construction activities. Creation of disturbed areas attributed to removal of riparian vegetation to allow for construction access could result in short-term decreased visual quality. Viewer response to this decrease in visual quality would be negative, albeit temporary, during the construction phase. Other key views from the northeast (Huntington residence, Bonk residence, Harris residence) would not likely be subjected to temporary visual impacts since construction activities that would occur in the vicinity of the bridge would be effectively shielded from these areas by coniferous and montane hardwood-conifer vegetation adjacent to the river (**Figure 3.14-3a**). No long-term visual impacts to key viewing areas in this VAU are anticipated since the new bridge will be constructed in nearly the exact location of the existing bridge.

VAU # 2: Salt Flat Bridge Unit

This VAU is comprised of the Trinity River and associated riparian corridor, the Salt Flat Bridge, and distant views of the surrounding mountains. Implementation of the Proposed Action would not introduce a new structure that would degrade or obstruct existing views within this VAU because a bridge already exists at the Salt Flat site. Temporary degradation of scenic views associated with construction of the Proposed Action would occur in this VAU since construction activities within the existing bridge alignment would be visible from the existing bridge, which will be relocated to provide access for area residents during construction. However, no long-term visual impacts to key viewing areas in this VAU are anticipated.

VAU # 3: Western Residence Unit

The Western Residence Unit VAU includes three distinct key viewing areas, described previously in this section. Views from the south, primarily from residences located southwest of the existing bridge structure, would be most sensitive to temporary visual impacts associated with construction activities. Creation of disturbed areas attributed to removal of riparian vegetation to allow for construction access could result in short-term decreased visual quality. Viewer response to this decrease in visual quality would be negative, albeit temporary, during the construction phase. Implementing mitigation measures from Section 3.7 regarding replacement of riparian vegetation (Mitigation Measures SF 3a – 3d) will reduce this impact to a less than significant level.

The long-term visual impact of constructing a new bridge four feet downstream of the left and 44 feet downstream of the right abutment (the Proposed Action) to key viewing areas in the Western Residence Unit VAU is that the bridge structure will become slightly more prominent in residents' views of the Trinity River.

Alternative 1 (Replacement Upstream, Private Ownership)

VAU # 1: Eastern Residence Unit

The Eastern Residence Unit VAU includes four distinct key viewing areas, as described previously. Views from the residences located northeast of the existing bridge, including the Huntington residence, looking west and southwest towards the Trinity River and existing Salt Flat Bridge, would be most sensitive to temporary visual impacts resulting from construction activities associated with Alternative 1. Removal of riparian vegetation to allow for construction access could result in short-term decreased visual quality. Viewer response to this decrease in visual quality would be negative, albeit temporary, during the construction phase. Other key views from the east (Salt Flat Road, Bonk residence, Harris residence) would not likely be subjected to temporary visual impacts since construction activities that would occur in the vicinity of the bridge would be effectively shielded from these areas by coniferous and montane hardwood-conifer vegetation adjacent to the river (**Figure 3.14-3a**).

Long-term visual impacts to key public viewing areas in this VAU could occur since the new bridge will be constructed in a new location upstream of the existing bridge. Views from the residences located northeast of the existing bridge, including the Huntington residence, would be most sensitive to long-term visual impacts associated with Alternative 1. A new bridge structure located 30 to 65 feet upstream of the existing bridge structure (Alternative 1) would be considered a minor intrusion to the VAU. Although it could become a more visible feature in the VAU, the structure would be integrated into the landscape and would not fully obstruct the resident's views of the Trinity River or destroy the natural landscape.

VAU # 2: Salt Flat Bridge Unit

This VAU is comprised of the Trinity River and associated riparian corridor, the Salt Flat Bridge, and distant views of the surrounding mountains. Implementation of Alternative 1 would not introduce a new structure that would degrade or obstruct existing views within this VAU because a bridge already exists at the Salt Flat site. Temporary degradation of scenic views would occur under Alternative 1 since construction activities would be visible from the existing bridge. However, no long-term visual impacts to key viewing areas in this VAU are anticipated.

VAU # 3: Western Residence Unit

The Western Residence Unit VAU includes three distinct key viewing areas, described previously in this section. Views from the south, primarily from residences located southwest of the existing bridge structure, would be sensitive to temporary visual impacts associated with removal of the existing bridge structure and construction of a new structure upstream. Riparian vegetation that currently exists between these residences and the Trinity River would continue to obstruct views of the areas north (upstream) of the existing bridge; therefore, short-term visual impacts to this VAU would be less under Alternative 1 than for the Proposed Action. Implementing mitigation measures from Section 3.7 regarding replacement of riparian vegetation (Mitigation Measures SF 3a – 3d) will reduce any temporary visual impact to a less than significant level. No long-term visual impacts to this VAU are anticipated because moving the bridge to an upstream location would be a beneficial impact to these residents' views of the Trinity River, either by moving the bridge further from view or by removing the bridge from view altogether.

Alternative 2 (Replacement Upstream, Public Ownership)

Degradation and/or obstruction of a scenic view from key viewing areas associated with Alternative 2 will be similar to Alternative 1.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A

Proposed Action; Alternative 1; Alternative 2

SF-1a: The following mitigation measures from Section 3.7 (Vegetation, Wildlife, and Wetlands) shall be implemented: Mitigation Measure SF-3a through SF-3d (Replacement of Riparian Vegetation).

Significance after Mitigation: *Less than Significant.*

Impact 3.14-2: Construction of the new bridge structures for the proposed Trinity River Bridges Project could be substantially out of character or disharmonious with existing land uses and aesthetic features. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

The No-Action Alternative will not be out of character or disharmonious with existing land uses because under the No-Action Alternative a new bridge would not be constructed at the Salt Flat site.

Proposed Action (Replacement Downstream, Private Ownership)

BLM has classified the Trinity River corridor as VRM Class II. Under this characterization, the level of change to the characteristic landscape should be low. Changes must repeat the basic elements of form, line, color and texture found in the predominant natural features of the landscape. Construction of the Proposed Action would not be disharmonious with elements in the existing landscape because a bridge currently exists at the Salt Flat Bridge site. Additionally, the new bridge has been designed to blend with the existing form, line, color, and texture of the predominant natural landscape.

Alternative 1 (Replacement Upstream, Private Ownership)

The visual impact of Alternative 1 would be similar to the Proposed Action.

Alternative 2 (Replacement Upstream, Public Ownership)

The visual impact of Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1; Alternative 2

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.14-3: The proposed Trinity River Bridges Project may be inconsistent with the federal and/or state Wild and Scenic River Act requirements. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

The No-Action Alternative will not be inconsistent with the federal and/or state WSRA requirements because under the No-Action Alternative a new bridge would not be constructed at the Salt Flat site.

Proposed Action (Replacement Downstream, Private Ownership)

Under Section 7 of the WSRA, direct and adverse effects to the values for which the Trinity River was recognized as a Wild and Scenic River are prohibited. Construction and implementation of the Proposed Action would not be inconsistent with these values because an existing bridge structure is already present at the project site and the proposed replacement structure would not be considered substantially out of character with the current aesthetic conditions. The WSRA Section 7 Determination for this Project is included as **Appendix G.**

Alternative 1 (Replacement Upstream, Private Ownership)

Consistency of Alternative 1 with the federal and state WSRA would be similar to the Proposed Action.

Alternative 2 (Replacement Upstream, Public Ownership)

Consistency of Alternative 2 with the federal and state WSRA requirements would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1; Alternative 2

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.14-4: The proposed Trinity River Bridges Project may potentially generate increased daytime glare and/or nighttime lighting. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, no increased daytime glare or nighttime lighting would occur because a new bridge would not be constructed at the Salt Flat site.

Proposed Action (Replacement Downstream, Private Ownership)

Under the Proposed Action, none of the new features associated with the new bridge structure are expected to result in increased daytime glare. The new bridge and associated components will be constructed of weathered steel, which do not typically generate daytime glare. Since no new roadway or bridge lighting is proposed as part of the Proposed Action, no permanent nighttime lighting effects would occur. However, the Proposed Action may result in a short-term, temporary increase in nighttime lighting. Construction of the right abutment and mid channel bar platform may take place partially during nighttime hours (6 pm to 10 pm) if the BOR contractor employs double-shifting construction to comply with seasonal restrictions associated with work within the Trinity River channel. This double-shifting would be limited to the Fall 2003 construction period (September 1st through October 15th). Nighttime construction may require stationary and mobile light sources. Headlights of construction equipment and vehicles would bring a new source of light to the area, albeit for a short time frame. The nighttime construction equipment/vehicle lighting will not shine directly into a local residence for the following reasons: the nearest

residents are located outside of the Project ESL, approximately 175 feet to the south; residences are situated at a higher elevation than the project site; and the existing riparian vegetation would serve as a buffer.

Alternative 1 (Replacement Upstream, Private Ownership)

Increased daytime glare and/or nighttime lighting associated with the construction of Alternative 1 would be similar to the Proposed Action.

Alternative 2 (Replacement Upstream, Public Ownership)

Increased daytime glare and/or nighttime lighting associated with the construction of Alternative 2 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A

Proposed Action; Alternative 1; Alternative 2

SF-4a: Stationary nighttime light sources, if utilized, shall be directed in such a way that minimizes light shining directly into adjacent residential areas and/or individual residences.

Significance after Mitigation: *Less than Significant*

Bucktail Bridge

Impact 3.14-1: Construction of the new bridge structures for the proposed Trinity River Bridges Project could result in the degradation and/or obstruction of a scenic view from key viewing areas. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no degradation or obstruction of a scenic view from key viewing areas would occur because the west approach roadway and new arch culvert would not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

As discussed previously in this section, the Bucktail site includes four distinct VAUs. The potential effects of the Proposed Action on key public viewing areas are discussed below by VAU.

VAU # 1: BLM Gravel Pit Unit

Views from the BLM Gravel Pit Unit VAU are open and expansive, as described previously in this section. Views from Browns Mountain Road would be most sensitive to temporary visual impacts associated with construction activities that could result in short-term decreased visual quality. Viewer response to this decrease in visual quality would be negative, albeit temporary, during the construction phase. No long-term visual impacts to views in this VAU are anticipated. Construction of the Proposed Action is not anticipated to permanently degrade or obstruct a scenic view in this VAU because current views are already dominated by the existing roadway and bridge structure.

VAU # 2: Bucktail Downstream Unit

Temporary degradation of scenic views associated with construction of the Proposed Action would occur in this VAU since construction activities and equipment would be visible from Bucktail Hole and from the public restroom area located downstream of the existing bridge, and from the temporary detour route to be constructed upstream of the existing roadway. However, no long-term visual impacts to key viewing areas in this VAU are anticipated because the roadway is already a prominent feature in this VAU. Implementation of the Proposed Action would not introduce new features that would degrade or obstruct existing views within this VAU.

VAU # 3: Western Browns Mountain Road Unit

The Western Residence Unit VAU includes five distinct key viewing areas, described previously in this section. Views from areas upstream of the existing roadway/bridge would be most sensitive to temporary and long-term visual impacts associated with construction activities. Temporary visual impacts would include construction equipment and activity on Browns Mountain Road and in upstream areas slated for placement of the temporary detour route. Creation of disturbed areas attributed to removal of riparian vegetation to allow for construction access could also result in short-term decreased visual quality. Viewer response to this decrease in visual quality would be negative, albeit temporary, during the construction phase. Implementing mitigation measures from Section 3.7 regarding replacement of riparian vegetation (Mitigation Measures BT 3a – 3d) will reduce this impact to a less than significant level.

The long-term visual impact of raising Browns Mountain Road and replacing the existing culvert with a larger arch culvert (the Proposed Action) to key viewing areas in the Western Browns Mountain Road Unit VAU is that the roadway will become slightly more prominent in residents' views of the Trinity River. This impact is not considered significant because the existing roadway is already prominent in residents' views of the Trinity River.

VAU # 4: Bucktail Bridge Unit

The Bucktail Bridge Unit VAU includes two distinct key viewing areas, described previously in this section. Temporary visual impacts would include construction equipment and activity on Browns Mountain Road. Creation of disturbed areas attributed to removal of riparian vegetation to allow for construction access could also result in short-term decreased visual quality. Viewer response to this decrease in visual quality would be negative, albeit temporary, during the construction phase. Implementing mitigation measures from Section 3.7 regarding replacement of riparian vegetation (Mitigation Measures BT 3a – 3d) will reduce this impact to a less than significant level. Long-term visual impacts to views in this VAU are not anticipated.

Alternative 1 (Raise Existing Upstream Levee)

VAU # 1: BLM Gravel Pit Unit

Views from the BLM Gravel Pit Unit VAU are open and expansive, as described previously in this section. However, the existing levee is not currently visible from this VAU due to the riparian vegetation on the left side of the Trinity River. Temporary visual impacts associated with construction activities at the levee site would be limited to construction traffic moving to and from the existing levee. Construction of Alternative 1 is not anticipated to permanently degrade or obstruct a scenic view in this VAU since the levee is not visible from key views in this VAU.

VAU # 2: Bucktail Downstream Unit

The existing levee is not currently visible from the Bucktail Downstream Unit VAU due to the existing roadway and bridge across the Trinity River. Temporary visual impacts associated with construction activities at the levee site would be limited to construction traffic moving to and from the existing levee. Construction of Alternative 1 is not anticipated to permanently degrade or obstruct a scenic view in this VAU since the levee is not visible from key views in this VAU.

VAU # 3: Western Browns Mountain Road Unit

The Western Browns Mountain Road Unit VAU includes five distinct key viewing areas, described previously in this section. Views from areas upstream of the existing levee would be most sensitive to temporary and long-term visual impacts associated with construction activities. Temporary visual impacts would include construction equipment and activity on and around the existing levee. Creation of disturbed areas attributed to removal of riparian vegetation to allow for construction access could also result in short-term decreased visual quality. Viewer response to this decrease in visual quality would be negative, albeit temporary, during the construction phase. Implementing mitigation measures from Section 3.7 regarding replacement of riparian vegetation (Mitigation Measures BT 3a – 3d) will reduce this impact to a less than significant level.

The long-term visual impact of raising the existing levee (Alternative 1) to key viewing areas in the Western Browns Mountain Road Unit VAU as a result of raising the levee is not considered significant since raising the levee would not make the feature substantially more prominent, nor would it obstruct residents' views of the Trinity River.

VAU # 4: Bucktail Bridge Unit

The Bucktail Bridge Unit VAU includes two distinct key viewing areas, described previously in this section. Temporary visual impacts would include construction equipment and activity on and around the existing levee located upstream of the roadway. Creation of disturbed areas attributed to removal of riparian vegetation to allow for construction access could also result in short-term decreased visual quality. Viewer response to this decrease in visual quality would be negative, albeit temporary, during the construction phase. Implementing mitigation measures from Section 3.7 regarding replacement of riparian vegetation (Mitigation Measures BT 3a – 3d) will reduce this impact to a less than significant level. Long-term visual impacts to views in this VAU are not anticipated since the existing levee already comprises upstream views from this VAU.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A

Proposed Action; Alternative 1

BT-1a: The following mitigation measures from Section 3.7 (Vegetation, Wildlife, and Wetlands) shall be fully implemented: Mitigation Measure BT-3a through BT-3d (Replacement of Riparian Vegetation).

Significance after Mitigation: *Less than Significant.*

Impact 3.14-2: Construction of the new bridge structures for the proposed Trinity River Bridges Project could be substantially out of character or disharmonious with existing land uses and aesthetic features. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

The No-Action Alternative will not be out of character or disharmonious with existing land uses because under the No-Action Alternative the west approach roadway and existing culvert will not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

BLM has classified the Trinity River corridor as VRM Class II. Under this characterization, the level of change to the characteristic landscape should be low. Changes must repeat the basic elements of form, line, color and texture found in the predominant natural features of the landscape. Construction of the Proposed Action would not be disharmonious with elements in the existing landscape because a roadway and culvert already exist at the Bucktail site. The culvert and elevated western roadway approach would not conflict with the current form, line, color, and texture that comprise the existing aesthetic condition at the Bucktail site.

Alternative 1 (Raise Existing Upstream Levee)

A levee currently exists at the Bucktail site but does not currently factor prominently in views of and from the Trinity River. Rather, this levee blends in with the natural surroundings and is not substantially out of character with the existing, natural landscape. Raising this levee would cause it to become more prominent in views from the existing bridge and roadway, and in downstream views from residences located upstream of the bridge; however, the feature would still be in character and harmonious with the existing aesthetic landscape.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.14-3: The proposed Trinity River Bridges Project may be inconsistent with the federal and/or state Wild and Scenic River Act requirements. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

The No-Action Alternative will not be inconsistent with the federal and/or state WSRA requirements because under the No-Action Alternative the west approach roadway and existing culvert will not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

Under Section 7 of the WSRA, direct and adverse effects to the values for which the Trinity River was recognized as a Wild and Scenic River are prohibited. Construction and implementation of the Proposed Action would not be inconsistent with these values because no long-term or permanent adverse impacts to recreation, scenic quality, or fish and wildlife values are anticipated. The WSRA Section 7 Determination for this Project is included as **Appendix G.**

Alternative 1 (Raise Existing Upstream Levee)

Consistency of Alternative 1 with the federal and state WSRA requirements would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.14-4: The proposed Trinity River Bridges Project may potentially generate increased daytime glare and/or nighttime lighting. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative no increased daytime glare or nighttime lighting would occur because the west approach roadway and existing culvert will not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

Under the Proposed Action, none of the new features associated with replacing the culvert or raising the existing right approach roadway are expected to result in increased daytime glare. No new roadway lighting or nighttime construction activities are anticipated under the Proposed Action.

Alternative 1 (Raise Existing Upstream Levee)

Increased daytime glare and/or nighttime lighting associated with the construction of Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Poker Bar Bridges

Impact 3.14-1: Construction of the new bridge structures for the proposed Trinity River Bridges Project could result in the degradation and/or obstruction of a scenic view from key viewing areas. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no degradation or obstruction of a scenic view from key viewing areas would occur because the new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

As discussed previously in this section, the Poker Bar site includes three distinct VAUs. The potential effects of the Proposed Action on key public viewing areas are discussed below by VAU.

VAU # 1: Mountain Views Unit

The Mountain Views Unit VAU includes three distinct key viewing areas described previously in this section. Views from Bridge Road and from residences adjacent to the project area would be sensitive to temporary visual impacts associated with construction activities in the project area. Creation of disturbed areas attributed to removal of riparian vegetation to allow for construction access could result in short-term decreased visual quality. Viewer response to this decrease in visual quality would be negative, albeit temporary, during the construction phase. Implementing mitigation measures from Section 3.7 regarding replacement of riparian vegetation (Mitigation Measures PB 3a – 3d) will reduce this impact to a less than significant level. No long-term visual impacts to key viewing areas in this VAU are anticipated since bridges and a roadway already exist at this site.

VAU # 2: Poker Bar Bridge Unit

This VAU is comprised of the Trinity River and associated riparian corridor, the Poker Bar Bridges, and distant views of the surrounding mountains. Implementation of the Proposed Action would not introduce a new structure that would degrade or obstruct existing views within this VAU because bridges already exist at the Poker Bar site. Temporary degradation of scenic views associated with construction of the Proposed Action would occur in this VAU since construction activities would be visible from the existing bridges. Implementing mitigation measures from Section 3.7 regarding replacement of riparian vegetation (Mitigation Measures PB 3a – 3d) will reduce this impact to a less than significant level. No long-term visual impacts to key viewing areas in this VAU are anticipated.

VAU # 3: River Terrace Unit

The River Terrace Unit VAU includes three distinct key viewing areas, described previously in this section. Views from residences located northwest of the existing bridge structure would be most sensitive to temporary visual impacts associated with construction activities. Creation of disturbed areas attributed to removal of riparian vegetation to allow for construction access could result in short-term decreased visual quality. Viewer response to this decrease in visual quality would be negative, albeit temporary, during the construction phase. Implementing mitigation measures from Section 3.7 regarding replacement of riparian vegetation (Mitigation Measures PB 3a – 3d) will reduce this impact to a less than significant level. No long-term visual impacts to key viewing areas in this VAU are anticipated.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Degradation and/or obstruction of a scenic view from key viewing areas resulting from construction and implementation of Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A

Proposed Action; Alternative 1

PB-1a: The following mitigation measures from Section 3.7 (Vegetation, Wildlife, and Wetlands) shall be fully implemented: Mitigation Measure PB-3a through PB-3d (Replacement of Riparian Vegetation).

Significance after Mitigation: *Less than Significant.*

Impact 3.14-2: Construction of the new bridge structures for the proposed Trinity River Bridges Project could be substantially out of character or disharmonious with existing land uses and aesthetic features. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

The No-Action Alternative will not be out of character or disharmonious with existing land uses because under this alternative the new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

BLM has classified the Trinity River corridor as VRM Class II. Under this characterization, the level of change to the characteristic landscape should be low. Changes must repeat the basic elements of form, line, color and texture found in the predominant natural features of the landscape. Construction and implementation of the Proposed Action would not be inconsistent with these values because existing bridge structures are already present at the project site and the proposed replacement structures would not be considered substantially out of character or disharmonious with the current aesthetic conditions.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

The visual impact of Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.14-3: The proposed Trinity River Bridges Project may be inconsistent with the federal and/or state Wild and Scenic River Act requirements. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

The No-Action Alternative will not be inconsistent with the federal and/or state WSRA requirements because under the No-Action Alternative the new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

Under Section 7 of the WSRA, direct and adverse effects to the values for which the Trinity River was recognized as a Wild and Scenic River are prohibited. Construction and implementation of the Proposed Action would not be inconsistent with these values because an existing bridge structure is already present at the project site and the proposed replacement structure would not considered substantially out of character with the current aesthetic conditions. In addition, implementation of the Proposed Action would not be inconsistent with the outstanding and remarkable values because no long-term or permanent impacts to recreational, scenic, or fish and wildlife resources are anticipated. The WSRA Section 7 Determination for this Project is included as **Appendix G.**

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Consistency of Alternative 1 with the federal and state WSRA requirements would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.14-4: The proposed Trinity River Bridges Project may potentially generate increased daytime glare and/or nighttime lighting. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no increased daytime glare or nighttime lighting would occur because under the No-Action Alternative the new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

Under the Proposed Action, none of the new features associated with the new bridge structures are expected to result in increased daytime glare. The new bridges and associated components will be constructed of weathered steel and reinforced concrete, which do not typically generate daytime glare. Since no new roadway or bridge lighting is proposed as part of the Proposed Action, no permanent nighttime lighting effects would occur. No nighttime construction activities are anticipated under the Proposed Action.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Increased daytime glare and/or nighttime lighting associated with the construction of Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative, Proposed Action, Alternative 1

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A

Biggers Road Bridge

Impact 3.14-1: Construction of the new bridge structures for the proposed Trinity River Bridges Project could result in the degradation and/or obstruction of a scenic view from key viewing areas. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no degradation or obstruction of a scenic view from key viewing areas would occur because a new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream)

As discussed previously in this section, the Biggers Road site includes three distinct VAUs. The potential effects of the Proposed Action on key public viewing areas are discussed below by VAU.

VAU # 1: Steel Bridge Road Unit

The Steel Bridge Road Unit VAU includes three distinct key viewing areas described previously in this section. Views from Steel Bridge Road would be sensitive to temporary visual impacts associated with construction activities in the project area. Creation of disturbed areas attributed to removal of riparian vegetation to allow for construction access could result in short-term decreased visual quality. Viewer response to this decrease in visual quality would be negative, albeit temporary, during the construction phase. Implementing mitigation measures from Section 3.7 regarding replacement of riparian vegetation (Mitigation Measures BR 3a – 3d) will reduce this impact to a less than significant level. No long-term visual impacts to key viewing areas in this VAU are anticipated since a bridge already exists at this site.

VAU # 2: Biggers Road Bridge Unit

This VAU is comprised of the Trinity River and associated riparian corridor, the existing Biggers Road Bridge, and views of the surrounding mountains. Implementation of the Proposed Action would not introduce a new structure that would degrade or obstruct existing views within this VAU because a bridge already exists at this site. Temporary degradation of scenic views associated with construction of the Proposed Action would occur in this VAU since upstream construction activities would be visible from the existing bridge. Creation of disturbed areas attributed to removal of riparian vegetation to allow for construction access could result in short-term decreased visual quality. Implementing mitigation measures from Section 3.7 regarding replacement of riparian vegetation (Mitigation Measures BR 3a – 3d) will reduce this impact to a less than significant level. No long-term visual impacts to key viewing areas in this VAU are anticipated.

VAU # 3: Western Residence Unit

The Western Residence Unit VAU includes three distinct key viewing areas, described previously in this section. Views from residences located west of the existing bridge structure would be most sensitive to temporary visual impacts associated with construction activities. Creation of disturbed areas attributed to removal of riparian vegetation to allow for construction access could result in short-term decreased visual quality. Viewer response to this decrease in visual quality would be negative, albeit temporary, during the construction phase. Implementing mitigation measures from Section 3.7 regarding replacement of riparian vegetation (Mitigation Measures BR 3a – 3d) will reduce this impact to a less than significant level. Long-term visual impacts to key viewing areas in this VAU are anticipated to occur. Specifically, the new bridge structure will become prominent in the view from the Biggers

residence, and moving the bridge upstream will make it a less prominent feature in the view from the Treadwell residence.

Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

VAU # 1: Steel Bridge Road Unit

The Steel Bridge Road Unit VAU includes three distinct key viewing areas, as described previously in this section. Views from Steel Bridge Road would be sensitive to temporary visual impacts associated with construction activities in the project area. Creation of disturbed areas attributed to removal of riparian vegetation to allow for construction access and retaining wall construction could result in short-term decreased visual quality. Viewer response to this decrease in visual quality would be negative, albeit temporary, during the construction phase. Implementing mitigation measures from Section 3.7 regarding replacement of riparian vegetation (Mitigation Measures BR 3a – 3d) will reduce this impact to a less than significant level. Long-term visual impacts to key viewing areas in this VAU are not anticipated since a bridge already exists at this site.

VAU # 2: Biggers Road Bridge Unit

This VAU is comprised of the Trinity River and associated riparian corridor, the existing Biggers Road Bridge, and views of the surrounding mountains. Temporary degradation of scenic views associated with construction of Alternative 1 may occur in this VAU due to retaining wall construction and because upstream construction activities would be clearly visible from the existing bridge. Creation of disturbed areas attributed to removal of riparian vegetation to allow for construction access and retaining wall construction could result in short-term decreased visual quality. Implementing mitigation measures from Section 3.7 regarding replacement of riparian vegetation (Mitigation Measures BR 3a – 3d) will reduce this impact to a less than significant level. No long-term visual impacts to key viewing areas in this VAU are anticipated.

VAU # 3: Western Residence Unit

The Western Residence Unit VAU includes three distinct key viewing areas, described previously in this section. Views from residences located west of the existing bridge structure would be most sensitive to temporary visual impacts associated with construction activities. Creation of disturbed areas attributed to removal of riparian vegetation to allow for construction access and retaining wall construction could result in short-term decreased visual quality. Viewer response to this decrease in visual quality would be negative, albeit temporary, during the construction phase. Implementing mitigation measures from Section 3.7 regarding replacement of riparian vegetation (Mitigation Measures BR 3a – 3d) will reduce this impact to a less than significant level. Long-term visual impacts to key viewing areas in this VAU are anticipated to occur. Specifically, the new bridge structure will become prominent in the view from the Biggers residence, and moving the bridge upstream will make it a less prominent feature in the view from the Treadwell residence.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A

Proposed Action; Alternative 1

BR-1a: The following mitigation measures from Section 3.7 (Vegetation, Wildlife, and Wetlands) shall be fully implemented: Mitigation Measure BR-3a through BR-3d (Replacement of Riparian Vegetation).

Significance after Mitigation: *Less than Significant.*

Impact 3.14-2: Construction of the new bridge structures for the proposed Trinity River Bridges Project could be substantially out of character or disharmonious with existing land uses and aesthetic features. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

The No-Action Alternative will not be out of character or disharmonious with existing land uses because a new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream)

BLM has classified the Trinity River corridor as VRM Class II. Under this characterization, the level of change to the characteristic landscape should be low. Changes must repeat the basic elements of form, line, color and texture found in the predominant natural features of the landscape. Construction and implementation of the Proposed Action would not be inconsistent with these values because an existing bridge structure is already present at the project site and the proposed replacement structure would not be considered substantially out of character with the current aesthetic conditions.

Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

The visual impact of Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.14-3: The proposed Trinity River Bridges Project may be inconsistent with the federal and/or state Wild and Scenic River Act requirements. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

The No-Action Alternative will not be inconsistent with the federal and/or state WSRA requirements because under the No-Action Alternative a new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream)

Under Section 7 of the WSRA, direct and adverse effects to the values for which the Trinity River was recognized as a Wild and Scenic River are prohibited. Construction and implementation of the Proposed Action would not be inconsistent with these values because an existing bridge structure is already present at the project site and the

proposed replacement structure would not considered substantially out of character with the current aesthetic conditions. In addition, implementation of the Proposed Action would not be inconsistent with the outstanding and remarkable values because no long-term or permanent impacts to recreational, scenic, or fish and wildlife resources are anticipated. The WSRA Section 7 Determination for this Project is included as **Appendix G.**

Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

Consistency of Alternative 1 with the federal and state WSRA requirements would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.14-4: The proposed Trinity River Bridges Project may potentially generate increased daytime glare and/or nighttime lighting. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no increased daytime glare or nighttime lighting would occur because under the No-Action Alternative the new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream)

Under the Proposed Action, none of the new features associated with the new bridge structure are expected to result in increased daytime glare. The new bridge and associated components will be constructed of weathered steel and reinforced concrete, which do not typically generate daytime glare. Since no new roadway or bridge lighting is proposed as part of the Proposed Action, no permanent nighttime lighting effects would occur. No nighttime construction activities are anticipated under the Proposed Action.

Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

Increased daytime glare and/or nighttime lighting associated with the construction of Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative, Proposed Action, Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

SECTION 3.15

Hazardous Materials

3.15 Hazardous Materials

This section provides an evaluation of the types of hazardous materials that may currently be present within the Project study area, as well as potential hazardous materials that may be introduced to the project study area as a result of implementing the proposed Project. Results of a detailed environmental site investigation conducted by Ninyo and Moore Geotechnical and Environmental Sciences Consultants (Ninyo and Moore 2003) for hazardous materials are summarized in this section as appropriate. Potential health hazards related to project construction are also evaluated.

3.15.1 Affected Environment/Environmental Setting

Regional Setting

Hazardous materials and wastes are regulated by federal, state, and local agencies, and are required to be recycled or disposed of properly. However, illegal storage and disposal and unintentional releases of hazardous materials or waste from leaks and accidents can still occur. In Trinity County and within the project region, such hazardous materials and waste are transported predominantly via roadways such as State Route 299. The California Highway Patrol (CHP) under the CCR, Title 13, sec. 1150-1194, and the CFR, Title 49 regulates transport of hazardous materials. When a hazardous material/waste spill originates on a highway, the CHP is responsible for direction of cleanup and enforcement (CCR §. 2450-2453b).

When a hazardous material/waste spill occurs on public land, it is the managing agency's responsibility to direct cleanup and enforcement, initiate all investigations and cleanup, and contact the necessary personnel. When a hazardous material/waste spill occurs on private lands, the property owner is responsible for cleanup. Trinity County Environmental Health contacts the proper personnel and ensures that cleanup is completed according to federal, state, and local regulations.

In 1994, State Bill 1982 amended the California Health and Safety Code, establishing a unified program to deal with hazardous waste and materials in California. The program consolidated six state environmental programs into one program under the authority of a Certified Unified Program Agency (CUPA). The six programs are: the Hazardous Materials Business Plan/Emergency Response Plan, Hazardous Waste, Tiered Permitting, Underground Storage Tanks, Aboveground Storage Tanks (Spill Prevention Control and Countermeasure only) and the Uniform Fire Code Hazardous Materials Management Plan. The CUPA is typically a local agency that has been certified by the California Environmental Protection Agency (CalEPA) to implement the six state environmental programs within the local agency's jurisdiction.

While the benefits of a CUPA are many for larger, more urban areas, there are fewer benefits for a rural area such as Trinity County. The costs and training required for implementing these programs at the local level is substantial. Reasons that the County has not become a CUPA include (County 2001):

1. No significant public or environmental health benefit has been identified for implementing these programs in rural areas that do not have an industrial base.
2. The CalEPA incentive funding, allotted in 2001, to the non-CUPA was not guaranteed and was dependent on the annual California budget. However, eligibility for such funding required a full commitment from the County to participate as a CUPA.

3. The program requires annual reporting and periodic state audits that would total approximately 100 hours of staff time annually, without any direct benefit to public health.

4. There would be substantial increased County liability from accepting responsibility for enforcing hazardous materials law.

5. Inspector proficiency would be extremely challenging due to the complexity of the hazardous material laws and the lack of local inspector opportunities. Establishing and maintaining staff proficiency would be a problem and would increase County liability.

Currently, the CalEPA is responsible for administering CUPA programs in Trinity County. Since the County has declined to apply for CUPA status, that responsibility remains with the CalEPA. The one exception to this rule is the Underground Tank Program, which has been administered by Trinity County Environmental Health for over a decade. Underground fuel storage tanks may leak, causing significant ground water contamination. These storage tanks are permitted and inspected annually to ensure operator compliance and to protect the County's ground water and drinking water supplies.

The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database contains general information on hazardous waste sites across the nation. **Table 3.15-1** lists the four active and six archived hazardous waste sites that are located in Trinity County.

Trinity County fire protection needs are currently met by 16 volunteer fire departments located throughout the County, the CDF, and the USFS. By law, the CDF is responsible for wildland fire protection on all private lands within Trinity County and the USFS is responsible fore wildland fire protection on all federal National Forest lands. Consequently, both the CDF and USFS fire stations are staffed only during the summer fire season, which normally lasts from May to November. The Trinity County volunteer fire departments are responsible for structural fire protection and rescue services in Trinity County throughout the year. The volunteer fire departments in Douglas City and Lewiston are governed through their respective Community Services District. The volunteer fire departments have legal district boundaries; however, departments routinely respond outside of their legal boundaries to any emergency they are dispatched to by the 9-1-1 Center, which is maintained by the Trinity County Sheriff's Department (County 2002).

TABLE 3.15-1
SUMMARY OF HAZARDOUS WASTE SITES RECORDED IN TRINITY COUNTY, CALIFORNIA

Site Name	Status	Location	Distance From Project
Cheek Skyline Logging	Active	South of Highway 3; Douglas City, CA	5 miles
Joseph Darin Development Company	Active	Private road off Highway 299; Junction City, CA	8 miles
Kingsbury Creek Mine Lab	Active	Shasta Trinity NF; Hayfork, CA	18 miles
USFS Drinkwater Gulch Mine	Active	T31N, R12W, Section 6; Hayfork, CA	20 miles
Buckeye LDFL	Archived	Near Redding, CA	25 miles
Jensen Lumber Company	Archived	West of the South Fork Trinity River 3 miles NW of Hyampom, CA	33 miles
Low Bar Mining Claim	Archived	T5N, R7E, Section 23; 26 miles east of Willow Creek, CA	25 miles
Riley Larry & Coffee Cr Sand Mine	Archived	41 02' 57" and 122 43' 29" Trinity Center, CA	24 miles
Sierra Pacific Industries	Archived	Mill Street and Highway 3; Hayfork, CA	16 miles
USFS Golden Jubilee Mine	Archived	T37N, R8W, Section 4; Trinity Center, CA	25 miles

Source: EPA 2002 (http://www.epa.gov/superfund/sites/cursites/index.htm)

The Safety Element of the Trinity County General Plan identifies specific major evacuation routes in the event of an emergency (**Figure 3.15-1**). Within the Project Area, the primary evacuation routes include State Route 299, Trinity Dam Boulevard, and Lewiston Road.

Local Setting

Salt Flat

Hazardous Spill History

No hazardous material spills have been recorded in the project vicinity.

Asbestos

One suspect asbestos sample was collected but laboratory analysis verified that the sample did not contain asbestos.

Lead-Based Paint

Five paint chip samples were collected from the existing bridge. The laboratory analysis indicated that all of the samples contained lead, at varying concentrations (190 parts per million [ppm] to 25,500 ppm).

Total Recoverable Petroleum Hydrocarbons

Three bulk wood samples were collected and found to have concentrations of total recoverable petroleum hydrocarbons (TRPH). These samples contained TRPH concentrations of 24 ppm, 64 ppm, and 17,000 ppm.

Contaminated Soils

Three soil samples were collected from underneath each footing of the bridge along the shoreline. While none of these samples contained concentrations of oil or grease, they all contained concentrations of lead as follows: 4.6 ppm, 23 ppm, and 160 ppm.

Miscellaneous Hazardous Building Materials

A visual assessment and quantification of potential mercury-containing items (e.g., thermostats/switches), polychlorinated biphenyls (PCB)-containing items (e.g., light ballasts, switches, and transformers), fluorescent light tubes, Freon-containing refrigerant systems, and low-level radioactive media (glow-in-the-dark exit signs) was performed. None of these materials were observed at the Salt Flat site.

Bucktail

Hazardous Spill History

No hazardous material spills have been recorded in the project vicinity.

Asbestos

Two suspect asbestos samples were collected but laboratory analysis verified that these samples did not contain asbestos.

Lead-Based Paint

Since the bridge was constructed after 1970 and consists of concrete and unpainted metal guardrails, no paint chips were collected. The bridge does not contain lead-based paint.

Total Recoverable Petroleum Hydrocarbons

Since the bridge consists entirely of concrete and unpainted metal guardrails, no bulk wood samples were collected. The bridge does not support materials that contain TRPH.

Contaminated Soils

Two soil samples were collected from underneath each footing of the Bucktail Bridge along the shoreline. No concentrations of oil, grease, or lead were detected.

Miscellaneous Hazardous Building Materials

A visual assessment and quantification of potential mercury-containing items (e.g., thermostats/switches), PCB-containing items (e.g., light ballasts, switches, and transformers), fluorescent light tubes, freon-containing refrigerant systems, and low-level radioactive media (glow-in-the-dark exit signs) was performed. None of these materials were observed at the Bucktail site.

Poker Bar

Hazardous Spill History

No hazardous material spills have been recorded in the project vicinity.

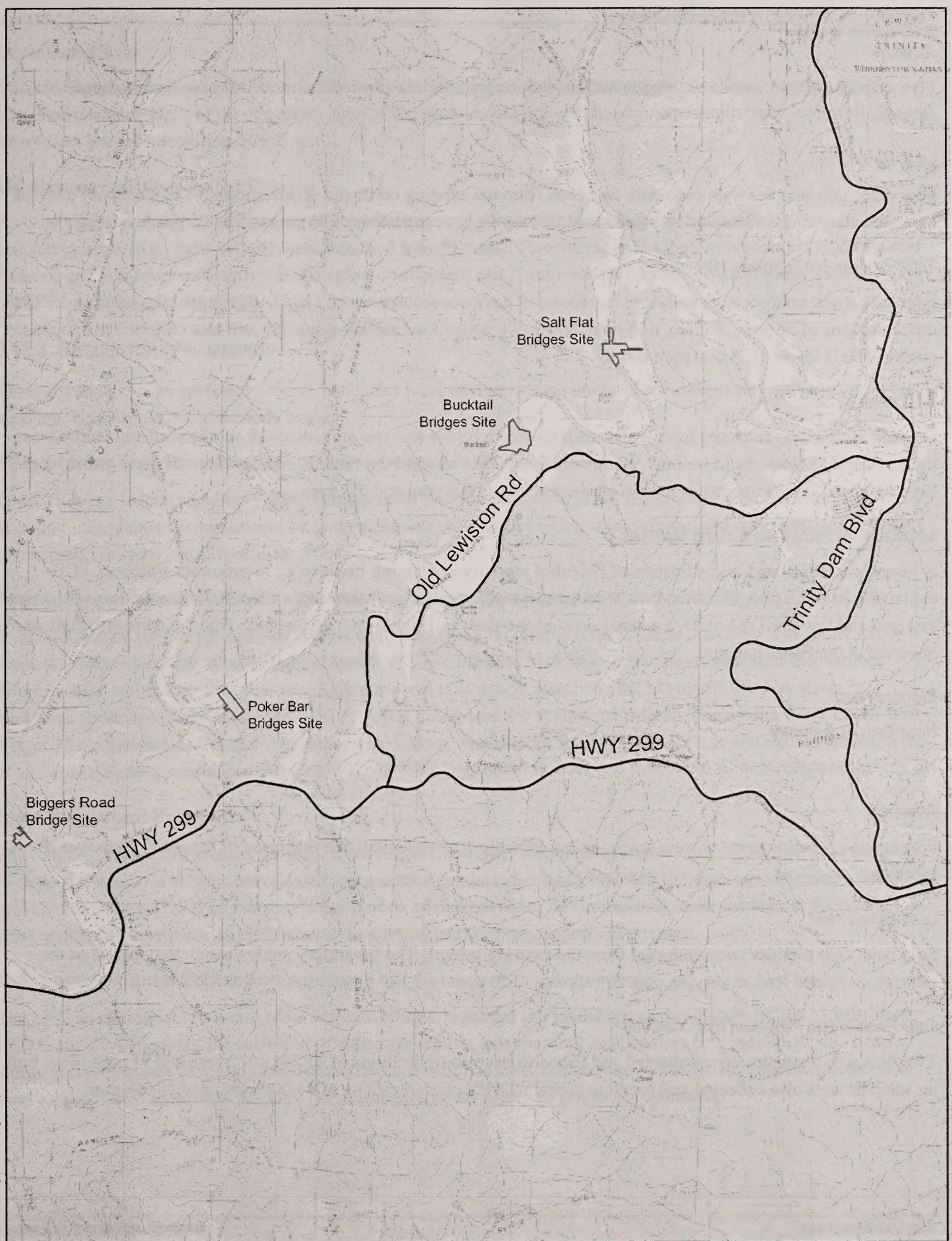

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Figure 3.15-1
Major Evacuation Routes

Asbestos

Five suspect asbestos sample were collected but laboratory analysis verified that none of these sample contained asbestos.

Lead-Based Paint

Four paint chip samples were collected, two each from the existing north and south bridges. The laboratory analysis indicated that all of the samples contained lead, at varying concentrations (714 ppm to 86,500 ppm).

Total Recoverable Petroleum Hydrocarbons

Four bulk wood samples were collected and found to have concentrations of TRPH. These samples contained TRPH concentrations of 56 ppm, 59 ppm, 660 ppm, and 2,400 ppm. Two asphalt samples were also collected and found to contain TRPH levels of 24,000 ppm and 87,000.

Contaminated Soils

One soil sample was collected from underneath the north bridge and one soil sample from the northeast bank next to the south bridge along the shoreline. While neither of these samples contained concentrations of oil or grease, they both contained concentrations of lead in concentrations of 4.9 ppm and 3.2 ppm.

Miscellaneous Hazardous Building Materials

A visual assessment and quantification of potential mercury-containing items (e.g., thermostats/switches), PCB-containing items (e.g., light ballasts, switches, and transformers), fluorescent light tubes, freon-containing refrigerant systems, and low-level radioactive media (glow-in-the-dark exit signs) was performed. None of these materials were observed at the Poker Bar site.

Biggers Road

Hazardous Spill History

No hazardous material spills have been recorded in the project vicinity.

Asbestos

Five suspect asbestos samples were collected but laboratory analysis verified that none of the samples contained asbestos.

Lead-Based Paint

Four paint chip samples were collected from the existing bridge. The laboratory analysis indicated that all of the samples contained lead, at varying concentrations (<100 ppm to 8,180 ppm).

Total Recoverable Petroleum Hydrocarbons

Two bulk wood samples were collected and found to have concentrations of TRPH at 72 ppm and 91 ppm. Two bulk tar samples were also collected and found to contain TRPH concentrations of 44,000 ppm, and 50,000 ppm.

Contaminated Soils

Two soil samples were collected from underneath each footing of the bridge along the shoreline. Neither sample contained concentrations of oil or grease. One of the samples did not contain any concentrations of lead, while the other had a lead concentration of 5.7 ppm.

Miscellaneous Hazardous Building Materials

A visual assessment and quantification of potential mercury-containing items (e.g., thermostats/switches), PCB-containing items (e.g., light ballasts, switches, and transformers), fluorescent light tubes, freon-containing refrigerant systems, and low-level radioactive media (glow-in-the-dark exit signs) was performed. None of these materials were observed at the Biggers Road site.

3.15.2 REGULATORY FRAMEWORK

Summarized below are pertinent federal, state, and local environmental laws and regulations pertaining to the storage, handling, and disposal of hazardous waste.

Federal Resource Conservation and Recovery Act (RCRA)

The RCRA is a federal regulatory statute designed to provide "cradle to grave" control of hazardous waste by imposing management requirements on generators and transporters of hazardous wastes and on owners and operators of treatment, storage, and disposal facilities.

Federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

The CERCLA of 1980 is the primary federal statute focusing on past hazardous waste activities. The CERCLA's scope is broader than that of other federal statutes. The CERCLA also initiated the development of the National Priorities List, which lists sites that are eligible for remedial action. Section 101(14)(a) of CERCLA states "a hazardous substance is any substance [the] EPA has designated for special consideration under the CAA, Clean Water Act, or Toxic Substances Control Act and any hazardous waste under RCRA." The EPA maintains and updates a list of all such hazardous substances (40 CFR 302).

State Superfund Program

The California State Legislature, in 1981, enacted the Hazardous Substances Account Act to establish state authority to clean up hazardous substances releases, compensate persons injured to exposure to hazardous substances, and provide funds for payment of the state's mandatory 10 percent share of cleanup cost under the federal Superfund Law. The California Department of Health Services administers the state Superfund program.

U.S. Environmental Protection Agency

The EPA, in additional to several other responsibilities, regulates the land disposal through the RCRA. Under the RCRA, the EPA regulates the activities of waste generators, transporters, and handlers (any individual who treats, stores, and/or disposes of a designated hazardous waste). The EPA is also responsible for tracking hazardous waste from its generation to its final disposal (i.e., cradle to grave) to assure proper accountability.

Occupational Safety and Health Administration (OSHA)

Through the enactment of the Occupational Safety and Health Act, the OSHA was obligated to prepare and enforce occupational health and safety regulations with the goal of providing employees a safe working environment. The OSHA regulations apply to the work place and cover activities ranging from confined space entry to toxic chemical exposure. The OSHA regulates workplace exposure to hazardous chemicals and activities through promulgating regulations specifying work place procedures and equipment.

U.S Department of Transportation (DOT)

The DOT regulates the interstate transport of hazardous materials and wastes through implementation of the Hazardous Materials Transportation Act. This act specifies driver-training requirements, load labeling procedures, and container design and safety specifications. Transporters of hazardous wastes must also meet the requirements of additional statutes such as the RCRA.

California Environmental Protection Agency Department of Toxic Substances Control (DTSC)

The DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under the RCRA and the State Hazardous Waste Control Law. Both laws impose "cradle to grave" regulatory systems for handling hazardous waste in a manner that protects human health and the environment.

Emergency Response to Hazardous Materials Incidents

California has developed and Emergency Response Plan to coordinate emergency services provided by federal, state, and local government and private agencies. Response to hazardous materials incidents is one part of this plan. The plan is administered by the state Office of Emergency Services (OES), which coordinates the responses of other agencies including the CalEPA, CHP, CDFG, the NCRWQCB, local fire departments, and other emergency service providers.

Hazardous Materials Transport

State agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the CHP and Caltrans. Together, these agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roads.

Trinity County General Plan Goals and Objectives

The Trinity County General Plan contains goals and policies designed to guide the future physical development of the County, based on current conditions. The General Plan contains all the state-required elements, including community development and design, transportation, natural resources, health and safety, noise, housing, recreation, economic development, public facilities and services, and air quality. The following goals and policies, relative to hazards and hazardous waste issues associated with the project study area, were taken from the applicable elements of the General Plan (County 2001). This includes the Lewiston Community Plan (County 1986) and the Douglas City Plan (County 1987).

County Wide Goals and Objectives

Safety Element

The following goals and objectives and policies are applicable to this project.

Hazardous Material/Waste Safety Goal

Reduce threats to the public health and the environment caused by the use, storage and transportation of hazardous material and hazardous waste.

Proper regulation of transportation and storage

- Transport of hazardous materials shall be regulated by the CHP under CCR Title 13: 1150-13:1194 and CFR Title 49.

Accessibility

- Roads shall be constructed to provide adequate width, grade and turn-around space for emergency vehicles by complying with appropriate federal, state and local adopted standards. Construction of roads shall protect water quality, slope stability and threat to natural and cultural resources.
- Encourage owners of existing private roads to provide identification signage for emergency access purposes.

Trinity County Fire Safe Ordinance (1992)

Trinity County's Fire Safe Ordinance (#1162) constitutes the basic wildland fire protection standards of the County. The ordinance is designed to provide basic emergency access and perimeter wildfire protection measures to all construction within the County approved after January 1, 1992, including (but not limited to) road construction where a road does not currently exist, or extension of an existing road. The County is responsible for providing the CDF with notice of applications for building permits and use permits for construction or development within the County, including maps. The CDF reviews these documents and makes fire protection recommendations. Applicable sections of this Ordinance become a condition of approval of any applicable construction, development permit, or map. Article 2 of this Ordinance defines the Emergency Access requirements for all new road construction, including road width, roadway turnarounds and roadway structures.

Project Consistency with the Trinity County General Plan and Community Plans

As described in Chapter 1, Introduction, the proposed Project would:

- Provide safe and reasonable year-round access to parcels of land served by the Salt Flat, Bucktail, Poker Bar and Biggers Road bridges across the Trinity River.
- Allow dam operators maximum flexibility to provide instream flow releases from Lewiston Dam adequate to meet the fishery and geomorphic flow needs for the mainstem Trinity River and to fulfill the Trinity River TMDL for sediment and restore the coldwater fishery beneficial use.

The following project objectives apply to the project's lead/responsible agencies for the CEQA purposes:

- Minimize the threat to public safety and potential damage to property posed by the existing high likelihood of flooding
- Provide maximum flexibility for implementing a variety of potential Trinity River fishery flow alternatives, as well as other flow alternatives outside the ROD such as increasing dam releases during periods of high downstream tributary inflows
- Allow for high-efficiency sediment transport in the Trinity River to maximize the amount of sediment transported on a per acre-foot basis so that Trinity River can be removed from California's Clean Water Act

Section 303(d) Impaired Waterbodies List, while minimizing the total amount of water necessary to transport sediment through the river system

- Provide maximum flexibility for operations of the TRD during periods of high runoff and flooding which could result in increased water in storage available for multiple beneficial uses (i.e., fisheries, recreation, water supply, water quality and power production)
- Provide alternative access on a short-term basis during project implementation
- Recovery of fish and wildlife resources that are listed as threatened and endangered

The following objectives apply to the projects responsible and trustee agencies, including the HVT, NCRWQCB, SLC, CDFG, and the SWRCB:

- Comply with the Water Code to ensure the highest reasonable quality of waters of the state and allocate those waters to achieve the optimum balance of beneficial uses
- Protect the public trust assets of the Trinity River watershed
- Protect, conserve, restore, and manage fish, wildlife, and native plant resources
- Comply with the Water Quality Control Plan for the Hoopa Valley Indian Reservation to preserve and enhance water quality on the Reservation, and to protect the beneficial uses of water.

These project objectives are consistent with the applicable general plan goals and policies summarized above.

3.15.3 Environmental Consequences/Impacts and Mitigation Measures

Methodology

Detailed site investigations were conducted on January 30 and 31, 2003 by Ninyo and Moore (2003) at each of the four project sites to document any known hazardous substances. Potential hazardous materials impacts were assessed by analyzing the construction, operation, and maintenance activities required for the project and determining the risks associated with these activities.

Significance Criteria

An impact would be considered significant if the proposed Project would

- involve the use, production, or disposal of materials that pose a hazard to people, or to animal or plant populations in the area affected;
- create a substantial potential public health or safety hazard due to risk of upset (accidents);
- create a substantial potential public health or safety hazard due to a reasonably foreseeable release of hazardous materials and/or hazardous waste (i.e., from contaminated soil);
- violate applicable laws intended to protect human health and safety or would expose employees to working situations that do not meet health standards;
- physically interfere with, or impair implementation of, emergency response plans or emergency evacuation plans;

- substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- be located on a site that is included on a list of hazardous materials sites compiled pursuant to *California Government Code* Section 65962.5 and, as a result, create a significant hazard to the public or the environment;
- emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- expose people or structure to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands; or
- result in inadequate emergency access.

A project will not be considered to have a significant impact if the potential for adverse effects is remote as supported by historical data.

Impacts and Mitigation Measures

Table 3.15-2 summarizes the potential hazards and hazardous waste impacts resulting from construction of the proposed Project.

TABLE 3.15-2
SUMMARY OF HAZARDS AND HAZARDOUS WASTE IMPACTS FROM THE PROPOSED TRINITY RIVER BRIDGES PROJECT

Impact	Project Site	No-Action Alternative	Proposed Action	Alternative 1	Alternative 2
1. Construction of the proposed Trinity River Bridges Project may expose potentially hazardous materials that could pose a public hazard.	Salt Flat	NI	S	S	S
	Bucktail	NI	LS	LS	N/A
	Poker Bar	NI	S	S	N/A
	Biggers Road	NI	S	S	N/A
2. Construction of the proposed Trinity River Bridges Project may increase the potential of public health or safety hazards due to increased risk of upset.	Salt Flat	NI	LS	LS	LS
	Bucktail	NI	LS	LS	N/A
	Poker Bar	NI	LS	LS	N/A
	Biggers Road	NI	LS	LS	N/A
3. Implementation of the proposed Trinity River Bridges Project may interfere with emergency response/evacuation plans by temporarily slowing traffic flow during the construction phase.	Salt Flat	NI	LS	LS	LS
	Bucktail	NI	LS	LS	N/A
	Poker Bar	NI	LS	LS	N/A
	Biggers Road	NI	LS	LS	N/A

Notes:
LS = Less than Significant S = Significant NI = No Impact SU = Significant Unavoidable
N/A = Not Applicable

Salt Flat Bridge

Impact 3.15-1: Construction of the proposed Trinity River Bridges Project may expose potentially hazardous materials that could pose a public hazard. ***No Impact for No-Action Alternative; Significant Impact for Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, construction activities that could potentially expose hazardous substances (i.e., treated timbers, contaminated soils) to the general public would not occur because a new bridge would not be constructed at the Salt Flat site.

Proposed Action (Replacement Downstream, Private Ownership)

As discussed under Affected Environment/Environmental Setting, the Salt Flat site supports the following potentially hazardous materials: lead-based paint, treated wood timbers that contain TRPHs, and contaminated soils at each bridge footing. Demolition of the existing bridge structure could result in the release of lead and TRPHs into the environment, which could potentially pose a health risk to construction workers and the general public during bridge demolition. Removal of the old bridge footings could expose soils contaminated with lead.

Alternative 1 (Replacement Upstream, Private Ownership)

Construction activities that could potentially expose hazardous substances (i.e., treated timbers, contaminated soils) to the general public under Alternative 1 would be similar to the Proposed Action.

Alternative 2 (Replacement Upstream, Public Ownership)

Construction activities that could potentially expose hazardous substances (i.e., treated timbers, contaminated soils) to the general public under Alternative 2 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1; Alternative 2

Contaminated Soils

SF-1a: During preparation of the construction bid documents, the BOR shall include provisions and associated contingency budget for containment, avoidance, and/or disposal of contaminated soil that may be encountered during the course of construction. The budget contingency shall account for the following: containment costs; excavation and disposal costs; overnight laboratory testing; importation of clean backfill material; and stand-by time for the construction contractor.

Lead-Based Paint

SF-1b: The contractor will be required to submit a Demolition Plan for approval by the BOR. The plan will specify the removal techniques and containment system(s) to be used to prevent lead paint from entering the Trinity River.

SF-1c: The contractor will be alerted to the presence of lead paint on the structure and in the soils beneath. The contractor will comply with all applicable worker safety practices required by the OSHA and the Cal-OSHA related to lead paint (i.e., 8 CCR 1532, Lead in Construction). The contractor will advise all workers of the presence of lead paint, and instruct them to wash hands after contact with painted surfaces and soils beneath the bridge, before eating, drinking, or smoking.

SF-1d: Prior to demolition and or reuse of the bridge, a licensed lead-based paint removal contractor shall be retained to remove any lead-based paint that is chipping or peeling from the bridge. This lead waste (paint chips, dust) shall be tested in accordance with Title 22 waste characterization requirements. Based on the results of these tests, the waste should be disposed of properly.

SF-1e: None of the metal portions of the bridge should be sawed, burned, or sanded except as allowed by 8 CCR 1532. It is anticipated that the bridges will become the property of the contractor. If disposal is required, the bridges shall be disposed of in a properly licensed landfill.

Total Recoverable Petroleum Hydrocarbons

SF-1f: All asphalt and tar waste generated during construction shall be removed from the project site and recycled at an approved facility.

SF-1g: All treated wood (i.e., bridge timbers) and associated waste shall be disposed of at an appropriate landfill pending the results of one or more of the following analytical tests:

- Toxicity Characteristic Leaching Procedure (TCLP)
- Fish Bioassay Testing
- Semi-volatile Organic Compounds (EPA Method 8270)

Significance after Mitigation: *Less than Significant.*

Impact 3.15-2: Construction of the proposed Trinity River Bridges Project may increase the potential of public health or safety hazards due to increased risk of upset. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, construction activities that could increase the potential of public health or safety hazards due to increased risk of upset would not occur because a new bridge would not be constructed at the Salt Flat site. The No-Action Alternative is not anticipated to adversely impact public health or safety.

Proposed Action (Replacement Downstream, Private Ownership)

Construction of a new bridge just downstream of the existing bridge (Proposed Action) could potentially result in the temporary increased use of substances such as gasoline, engine oil, hydraulic fluid, and grease. These substances, based on the expected type and amount of usage, would not be considered hazardous to the general public.

Future operation of a new bridge structure and associated roadway approaches is not expected to increase the potential for public health or safety hazards associated with accidents. Implementation of the proposed project would improve traffic safety, especially with regards to potential accidents, which would reduce the potential for public health and safety hazards associated with accidents.

Alternative 1 (Replacement Upstream, Private Ownership)

The potential of public health or safety hazards due to increased risk of upset associated with construction of a new bridge upstream of the existing bridge (Alternative 1) would be similar to the Proposed Action.

Alternative 2 (Replacement Upstream, Public Ownership)

The potential of public health or safety hazards due to increased risk of upset associated with construction of a new bridge upstream of the existing bridge (Alternative 2) would be similar to the Proposed Action. Increased traffic may increase the future risk of public health or safety hazards, but it is undeterminable and offset by increased safety of the new bridge (e.g. trusses serving as guard rails).

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1; Alternative 2

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Impact 3.15.3: Implementation of the proposed Trinity River Bridges Project may interfere with emergency response/evacuation plans by temporarily slowing traffic flow during the construction phase. ***No Impact for No-Action Alternative; Less than Significant Impact for Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, construction activities that could interfere with emergency response/evacuation plans would not occur because a new bridge would not be constructed at the Salt Flat site. The No-Action Alternative is not anticipated to adversely impact traffic flow in the Project Area.

Proposed Action (Replacement Downstream, Private Ownership)

The existing Salt Flat Bridge will be rotated and modified to provide temporary construction access for property owners during construction. Temporary closures of Salt Flat Road and the existing bridge may be required during construction of the new road alignment or bridge abutments, but adequate passage of traffic during an evacuation event would be accommodated. The Trinity County General Plan Safety Element designates Lewiston Road, Trinity Dam Boulevard, and SR 299 as the major evacuation routes in the project region (**Figure 3.15-1**). Construction activities associated with the proposed replacement of the Salt Flat Bridge would not significantly interfere with these identified evacuation routes.

Alternative 1 (Replacement Upstream, Private Ownership)

Similar to the Proposed Action, construction activities associated with Alternative 1 would not significantly interfere with emergency response/evacuation plans.

Alternative 2 (Replacement Upstream, Public Ownership)

Similar to the Proposed Action and Alternative 1, construction activities associated with Alternative 2 would not significantly interfere with emergency response/evacuation plans.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1; Alternative 2

Since no significant impacts were identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Bucktail Bridge

Impact 3.15-1: Construction of the proposed Trinity River Bridges Project may expose potentially hazardous materials that could pose a public hazard. ***No Impact for No-Action Alternative; Less than Significant Impact for Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, construction activities that could potentially expose hazardous substances (i.e., contaminated soils) to the general public would not occur because the west approach roadway and the existing culvert would not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

As discussed in the Affected Environment/Environmental Setting, the Bucktail site does not contain any potentially hazardous materials. Construction activities at the site would not expose potentially hazardous materials that would pose a public hazard.

Alternative 1 (Raise Existing Upstream Levee)

As discussed in the Affected Environment/Environmental Setting, the Bucktail site does not contain any potentially hazardous materials. Construction activities at the site would not expose potentially hazardous materials that would pose a public hazard.

Mitigation Measures

No-Action Alternative, Proposed Action, Alternative 1

Since no impacts were identified, no mitigation is required.

Significance after Mitigation: N/A.

Impact 3.15-2: Construction of the proposed Trinity River Bridges Project may increase the potential of public health or safety hazards due to increased risk of upset. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, construction activities that could increase the potential of public health or safety hazards due to increased risk of upset would not occur because the west approach roadway and the existing culvert will not be replaced at the Bucktail site. The No-Action Alternative is not anticipated to adversely impact public health or safety.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

Construction of a new west approach roadway and arch culvert could potentially result in the temporary increased use of substances such as gasoline, engine oil, hydraulic fluid, and grease. These substances, based on the expected type and amount of usage, would not be considered hazardous to the general public.

Future operation of a new roadway is not expected to increase the potential for public health or safety hazards associated with accidents. Implementation of the proposed project would improve traffic safety, especially with regards to potential accidents, which would reduce the potential for public health and safety hazards associated with accidents.

Alternative 1 (Raise Existing Upstream Levee)

Raising the existing upstream levee could potentially result in the temporary increased use of substances such as gasoline, engine oil, hydraulic fluid, and grease. These substances, based on the expected type and amount of usage, would not be considered hazardous to the general public.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Impact 3.15.3: Implementation of the proposed Trinity River Bridges Project may interfere with emergency response/evacuation plans by temporarily slowing traffic flow during the construction phase. ***No Impact for No-Action Alternative; Significant Impact for Proposed Action; Less than Significant Impact for Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, construction activities that could interfere with emergency response/evacuation plans would not occur because the west approach roadway and the existing culvert will not be replaced at the Bucktail site. The No-Action Alternative is not anticipated to adversely impact traffic flow in the Project Area.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

A detour will be constructed around the existing Browns Mountain Road and culvert to provide access for property owners during construction of the new culvert and roadway. Short-term, temporary closures of Browns Mountain Road may be required during construction of the new culvert and roadway improvements, but adequate passage of traffic during an evacuation event would be accommodated. The Trinity County General Plan Safety Element designates Lewiston Road, Trinity Dam Boulevard, and SR 299 as the major evacuation routes in the project region (**Figure 3.15-1**). Proposed construction activities associated with the Bucktail site would not significantly interfere with these identified evacuation routes.

Alternative 1 (Raise Existing Upstream Levee)

Temporary closures of Browns Mountain Road and Bucktail Bridge are not anticipated under Alternative 1. Alternative 1 is not anticipated to adversely impact traffic flow in the Project Area.

Mitigation Measures

No-Action Alternative; Proposed Action, Alternative 1

Since no significant impacts were identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Poker Bar Bridges

Impact 3.15-1: Construction of the proposed Trinity River Bridges Project may expose potentially hazardous materials that could pose a public hazard. ***No Impact for No-Action Alternative; Significant Impact for Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, construction activities that could potentially expose hazardous substances (i.e., asbestos fibers, contaminated soils) to the general public would not occur because the new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

As discussed in the Affected Environment/Environmental Setting, the Poker Bar site supports the following potentially hazardous materials: lead-based paint, treated wood timbers that contain TRPHs, old asphalt also containing TRPHs, and contaminated soils at each bridge footing. Demolition of the existing bridge structures could result in the release of lead and TRPHs into the environment, which could potentially pose a health risk to construction workers and the general public during bridge demolition. Removal of the old bridge footings and old pavement could expose soils contaminated with lead.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Construction activities that could potentially expose hazardous substances (i.e., treated timbers, contaminated soils) to the general public under Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1

Contaminated Soils

PB-1a: During preparation of the construction bid documents, the BOR shall include provisions and associated contingency budget for containment, avoidance, and/or disposal of contaminated soil that may be encountered during the course of construction. The budget contingency shall account for the following: containment costs; excavation and disposal costs; overnight laboratory testing; importation of clean backfill material; and stand-by time for the construction contractor.

Lead-Based Paint

PB-1b: The contractor will be required to submit a Demolition Plan for approval by the BOR. The plan will specify the removal techniques and containment system(s) to be used to prevent lead paint from entering the Trinity River.

PB-1c: The contractor will be alerted to the presence of lead paint on the structures and in the soils beneath. The contractor will comply with all applicable worker safety practices required by the OSHA and the Cal-OSHA related to lead paint (i.e., 8 CCR 1532, Lead in Construction). The contractor will advise all workers of the presence of lead paint, and instruct them to wash hands after contact with painted surfaces and soils beneath the bridge, before eating, drinking, or smoking.

PB-1d: Prior to demolition and or reuse of the bridges, a licensed lead-based paint removal contractor shall be retained to remove any lead-based paint that is chipping or peeling from the bridge. This lead waste (paint chips, dust) shall be tested in accordance with Title 22 waste characterization requirements. Based on the results of these tests, the waste should be disposed of properly.

PB-1e: None of the metal portions of the bridges should be sawed, burned, or sanded and, based on their condition, shall be disposed of in a properly-licensed landfill.

Total Recoverable Petroleum Hydrocarbons

PB-1f: All asphalt and tar waste generated during construction shall be removed from the project site and recycled at an approved facility.

PB-1g: All treated wood (i.e., bridge timbers) and associated waste shall be disposed of at an appropriate landfill pending the results of one or more of the following analytical tests:

- The TCLP
- Fish Bioassay Testing
- Semi-volatile Organic Compounds (EPA Method 8270)

Significance after Mitigation: *Less than Significant.*

Impact 3.15-2: Construction of the proposed Trinity River Bridges Project may increase the potential of public health or safety hazards due to increased risk of upset. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, construction activities that could increase the potential of public health or safety hazards due to increased risk of upset would not occur because the new bridges would not be constructed at the Poker Bar site. The No-Action Alternative is not anticipated to adversely impact public health or safety.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

Construction of the Proposed Action could potentially result in the temporary increased use of substances such as gasoline, engine oil, hydraulic fluid, and grease. These substances, based on the expected type and amount of usage, would not be considered hazardous to the general public.

Future operation of new bridges and a new roadway is not expected to increase the potential for public health or safety hazards associated with accidents. Implementation of the proposed project would improve traffic safety, especially with regards to potential accidents, which would reduce the potential for public health and safety hazards associated with accidents.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

The potential of public health or safety hazards due to increased risk of upset associated with construction of new bridges downstream of the existing bridge (Alternative 1) would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A.

Impact 3.15.3: Implementation of the proposed Trinity River Bridges Project may interfere with emergency response/evacuation plans by temporarily slowing traffic flow during the construction phase. ***No Impact for No-Action Alternative; Significant Impact for Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, construction activities that could interfere with emergency response/evacuation plans would not occur because the new bridges would not be constructed at the Poker Bar site. The No-Action Alternative is not anticipated to adversely impact traffic flow in the Project Area.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

The existing bridges will remain open to traffic and will provide access for homeowners and construction equipment and personnel during construction associated with the Proposed Action. Temporary closures of Poker Bar Road, Bridge Road, and the existing bridges may be necessary at times during construction, particularly when tying the new road alignment onto the existing road alignment, but adequate passage of traffic during an evacuation event would be accommodated. The Trinity County General Plan Safety Element designates Lewiston Road, Trinity Dam Boulevard, and SR 299 as the major evacuation routes in the project region (**Figure 3.15-1**). Construction activities associated with the proposed replacement of the Poker Bar Bridges would not significantly interfere with these identified evacuation routes.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Similar to the Proposed Action, construction activities associated with Alternative 1 would not significantly interfere with emergency response/evacuation plans.

Mitigation Measures

No-Action Alternative, Proposed Action, Alternative 1

Since no significant impacts were identified, no mitigation is required.

Significance after Mitigation: N/A.

Biggers Road Bridge

Impact 3.15-1: Construction of the proposed Trinity River Bridges Project may expose potentially hazardous materials that could pose a public hazard. ***No Impact for No-Action Alternative; Significant Impact for Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, construction activities that could potentially expose hazardous substances (i.e., treated timbers, contaminated soils) to the general public would not occur because a new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream)

As discussed in the Affected Environment/Environmental Setting, the Biggers Road site supports the following potentially hazardous materials: lead-based paint, treated wood timbers that contain TRPHs, and contaminated soils at each bridge footing. Demolition of the existing bridge structure could result in the release of lead and TRPHs into the environment, which could potentially pose a health risk to construction workers and the general public during bridge demolition. Removal of the old bridge footings could expose soils contaminated with lead.

Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

Construction activities that could potentially expose hazardous substances (i.e., treated timbers, contaminated soils) to the general public under Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1

Contaminated Soils

BR-1a: During preparation of the construction bid documents, the BOR shall include provisions and associated contingency budget for containment, avoidance, and/or disposal of contaminated soil that may be encountered during the course of construction. The budget contingency shall account for the following: containment costs; excavation and disposal costs; overnight laboratory testing; importation of clean backfill material; and stand-by time for the construction contractor.

Lead-Based Paint

BR-1b: The contractor will be required to submit a Demolition Plan for approval by the BOR. The plan will specify the removal techniques and containment system(s) to be used to prevent lead paint from entering the Trinity River.

BR-1c: The contractor will be alerted to the presence of lead paint on the structure and in the soils beneath. The contractor will comply with all applicable worker safety practices required by the OSHA and the Cal-OSHA related to lead paint (i.e., 8 CCR 1532, Lead in Construction). The contractor will advise all workers of the presence of lead paint, and instruct them to wash hands after contact with painted surfaces and soils beneath the bridge, before eating, drinking, or smoking.

BR-1d: Prior to demolition and or reuse of the bridge, a licensed lead-based paint removal contractor shall be retained to remove any lead-based paint that is chipping or peeling from the bridge. This lead waste (paint chips, dust) shall be tested in accordance with Title 22 waste characterization requirements. Based on the results of these tests, the waste should be disposed of properly.

BR-1e: None of the metal portions of the bridge should be sawed, burned, or sanded and, based on their condition, shall be disposed of in a properly-licensed landfill.

Total Recoverable Petroleum Hydrocarbons

BR-1f: All asphalt and tar waste generated during construction shall be removed from the project site and recycled at an approved facility.

BR-1g: All treated wood (i.e., bridge timbers) and associated waste shall be disposed of at an appropriate landfill pending the results of one or more of the following analytical tests:

- The TCLP
- Fish Bioassay Testing
- Semi-volatile Organic Compounds (EPA Method 8270)

Significance after Mitigation: *Less than Significant.*

Impact 3.15-2: Construction of the proposed Trinity River Bridges Project may increase the potential of public health or safety hazards due to increased risk of upset. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, construction activities that could increase the potential of public health or safety hazards due to increased risk of upset would not occur because a new bridge would not be constructed at the Biggers Road site. The No-Action Alternative is not anticipated to adversely impact public health or safety.

Proposed Action (Replacement Upstream)

Construction of the Proposed Action could potentially result in the temporary increased use of substances such as gasoline, engine oil, hydraulic fluid, and grease. These substances, based on the expected type and amount of usage, would not be considered hazardous to the general public.

Future operation of a new bridge structure and associated roadway approaches is not expected to increase the potential for public health or safety hazards associated with accidents. Implementation of the proposed project would improve traffic safety, especially with regards to potential accidents, which would reduce the potential for public health and safety hazards associated with accidents.

Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

The potential of public health or safety hazards due to increased risk of upset associated with Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.15.3: Implementation of the proposed Trinity River Bridges Project may interfere with emergency response/evacuation plans by temporarily slowing traffic flow during the construction phase. ***No Impact for No-Action Alternative; Less than Significant Impact for Proposed Action, Significant Impact for Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, construction activities that could interfere with emergency response/evacuation plans would not occur because a new bridge would not be constructed at the Biggers Road site. The No-Action Alternative is not anticipated to adversely impact traffic flow in the Project Area.

Proposed Action (Replacement Upstream)

The existing bridge will remain open to traffic and provide access for homeowners, construction equipment, and personnel during construction. A minimum of one lane of traffic will be accommodated through the construction site at all times. Temporary closures of Biggers Road Bridge and Steel Bridge Road may be necessary at times during construction, but adequate passage of traffic during an evacuation event would be accommodated. The Trinity County General Plan Safety Element designates Lewiston Road, Trinity Dam Boulevard, and SR 299 as the major evacuation routes in the project region (**Figure 3.15-1**). Construction activities associated with the proposed replacement of the Biggers Road Bridge would not significantly interfere with these identified evacuation routes.

Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

Traffic will be maintained on the existing bridge and roadway alignment as the new bridge is constructed. Single lane closures and staged construction on Steel Bridge Road are anticipated to complete the construction of the approach roadway at the east side of the bridge. A minimum of one lane of traffic will be accommodated through the construction site at all times. It is estimated that Steel Bridge Road will require intermittent daily closures approximately four hours per day between the hours of 9 am and 3 pm for approximately two weeks during construction of the retaining wall and the raising of Steel Bridge Road. In the event of an emergency, adequate passage of traffic during an evacuation event would be accommodated.

Mitigation Measures

No-Action Alternative; Proposed Action, Alternative 1

Since no significant impacts were identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

SECTION 3.16

Noise

3.16 Noise

This section evaluates the potential noise effects associated with construction of the proposed Project. The following evaluation is based on review of local land use plans and policies, and field reconnaissance to identify potential sensitive receptors relative to the proposed construction activities.

3.16.1 Affected Environment/Environmental Setting

Existing Noise Levels

This noise analysis describes the existing noise environment in the vicinity of the four bridge sites. The relevant noise standard for this project comes from the Noise Element of the County of Trinity General Plan (County 1974). These standards were used to determine whether the project would result in significant noise impacts, and whether mitigation for these impacts would be required. Total noise in a given environment is usually measured with an A-weighted decibel scale (dBA), which approximates the range of sound audible to the human ear (where 10dBA is at the low threshold of hearing, and 120dBA is the threshold of pain). **Table 3.16-1** lists examples of dBA levels for a range of noises.

TABLE 3.16-1
NOISE LEVELS AND ASSOCIATED EFFECT FOR A VARIETY OF NOISE TYPES

Noise Source at a Given Distance	A-Weighted Sound Level in Decibels[a]	Noise Environments	Subjective Impression
	140		
Civil defense siren (100 feet)	130		
Jet takeoff (200 feet)	120		Pain threshold
	110	Rock music concert	
Ambulance siren (100 feet)	100		Very loud
	90	Boiler room Printing press plant	
Freight cars (50 feet) Pneumatic drill (50 feet)	80		
Freeway (100 ft)	70		Moderately loud
Vacuum cleaner (10 feet)	60	Data processing center Department store	
Light traffic (100 feet) Large transformer (200 feet)	50	Private business office	
	40		Quiet
Soft whisper (5 feet)	30		
	20		
	10		Threshold of hearing

[a] A-Weighted Sound Level, dBA = The A-weighted filter de-emphasizes very low and very high frequency components of sound similar to the response of the human ear.

Noise measurements are usually taken over time to capture daily or hourly variance of noise levels. Noise levels taken over time are often reported in energy-equivalent noise level (L_{eq}), the day-night average noise level (L_{dn}), and the community noise equivalent (CNEL). L_{eq} is an hourly average, while L_{dn} and CNEL are 24-hour weighted averages.

Noise is not considered to be a problem in Trinity County. Sources of noise in Trinity County include the following:

- Highway traffic, especially logging trucks
- Sawmills
- Airports (light planes)
- Other sources, classifiable as miscellaneous residential, commercial, and industrial sources

Noise levels in the project vicinity are governed primarily by noise from local residential and commercial vehicle traffic and miscellaneous sources (i.e., river flow, overhead aircraft, barking dogs, children at play). A community noise survey was conducted in Trinity County in 2002 (Brown-Buntin 2002) as part of the update for the County General Plan – Noise Element. The nearest survey points to the proposed Project ESLs were two sites in Lewiston: 307 2nd Avenue and Lewiston Road. The community noise survey results indicate that noise levels in noise-sensitive area range from 44 to 52 dB L_{dn}[1] at these locations. These are low noise levels, which is typical of small communities and rural areas. Maximum noise levels observed during the noise survey were generally caused by local automobile traffic and heavy trucks (Brown-Buntin 2002). Occasional aircraft overflights and construction activities were other sources of maximum noise levels. Background noise levels in the absence of these maximum-noise generating events are largely attributed to distant traffic, wind, birds, and insects.

Sensitive Noise Receptors

Sensitive receptors are specific geographic points, such as residences or parks, where people could be exposed to unacceptable levels of noise. Noise-sensitive land uses that have been identified in the project area include private residences in the vicinity of the construction sites and recreation use of the river corridor.

Salt Flat

Six sensitive receptors (private residences) are located just outside the Project ESL (**Figure 3.16-1a**). Sensitive receptors identified within 1,000 feet of the Salt Flat Bridge are listed below in **Table 3.16-2**.

TABLE 3.16-2
SENSITIVE NOISE RECEPTORS – SALT FLAT BRIDGE SITE

Receptor Number	Description	Approximate Distance to Construction Limit (ft)	Approximate Distance to Nearest Access Road (ft)
SF-1	Private Residence	92	228
SF-2	Private Residence	214	335
SF-3	Private Residence	684	699
SF-4	Private Residence	347	365
SF-5	Private Residence	338	350
SF-6	Private Residence	641	531

[1] dB L_{dn} = The average equivalent sound level during a 24-hour day, obtained after addition of ten A-weighted decibels to sound levels in the night after 10:00 PM and before 7:00 AM.

Bucktail

Twenty-seven sensitive receptors (private residences and one recreation area) are located just outside the Project ESL. One of these receptors intersects with the ESL boundary. Bucktail Hole, located within the ESL boundary, is considered a sensitive receptor for the purposes of this evaluation (**Figure 3.16-1b**). Sensitive receptors identified within 1,000 feet of the Bucktail Bridge are listed below in **Table 3.16-3**.

TABLE 3.16-3
SENSITIVE NOISE RECEPTORS – BUCKTAIL BRIDGE SITE

Receptor Number	Description	Approximate Distance to Construction Limit (ft)	Approximate Distance to Nearest Access Road (ft)
BT-1	Private Residence	200	200
BT-2	Private Residence	107	107
BT-3	Private Residence	40	40
BT-4	Private Residence	33	39
BT-5	Private Residence	66	76
BT-6	Private Residence	182	65
BT-7	Private Residence	73	83
BT-8	Private Residence	127	127
BT-9	Private Residence	192	192
BT-10	Private Residence	214	214
BT-11	Private Residence	275	275
BT-12	Private Residence	382	382
BT-13	Private Residence	325	422
BT-14	Private Residence	538	579
BT-15	Private Residence	484	556
BT-16	Private Residence	537	621
BT-17	Private Residence	530	621
BT-18	Private Residence	551	608
BT-19	Private Residence	680	757
BT-20	Private Residence	650	750
BT-21	Private Residence	654	696
BT-22	Private Residence	539	539
BT-23	Private Residence	490	490
BT-24	Private Residence	425	425
BT-25	Private Residence	360	360
BT-26	Private Residence	341	341
BT-27	Bucktail Hole	96	96

Poker Bar

Eleven sensitive receptors (private residences) are located just outside the Project ESL, although no sensitive receptors are situated inside the ESL boundary (**Figure 3.16-1c**). Sensitive receptors identified within 1,000 feet of the Poker Bar Bridges are listed below in **Table 3.16-4**.

TABLE 3.16-4
SENSITIVE NOISE RECEPTORS – POKER BAR BRIDGES SITE

Receptor Number	Description	Approximate Distance to Construction Limit (ft)	Approximate Distance to Nearest Access Road (ft)
PB-1	Private Residence	132	191
PB-2	Private Residence	119	158
PB-3	Private Residence	157	188
PB-4	Private Residence	187	173
PB-5	Private Residence	257	109
PB-6	Private Residence	320	306
PB-7	Private Residence	271	233
PB-8	Private Residence	592	571
PB-9	Private Residence	1002	994
PB-10	Private Residence	498	498
PB-11	Private Residence	516	516

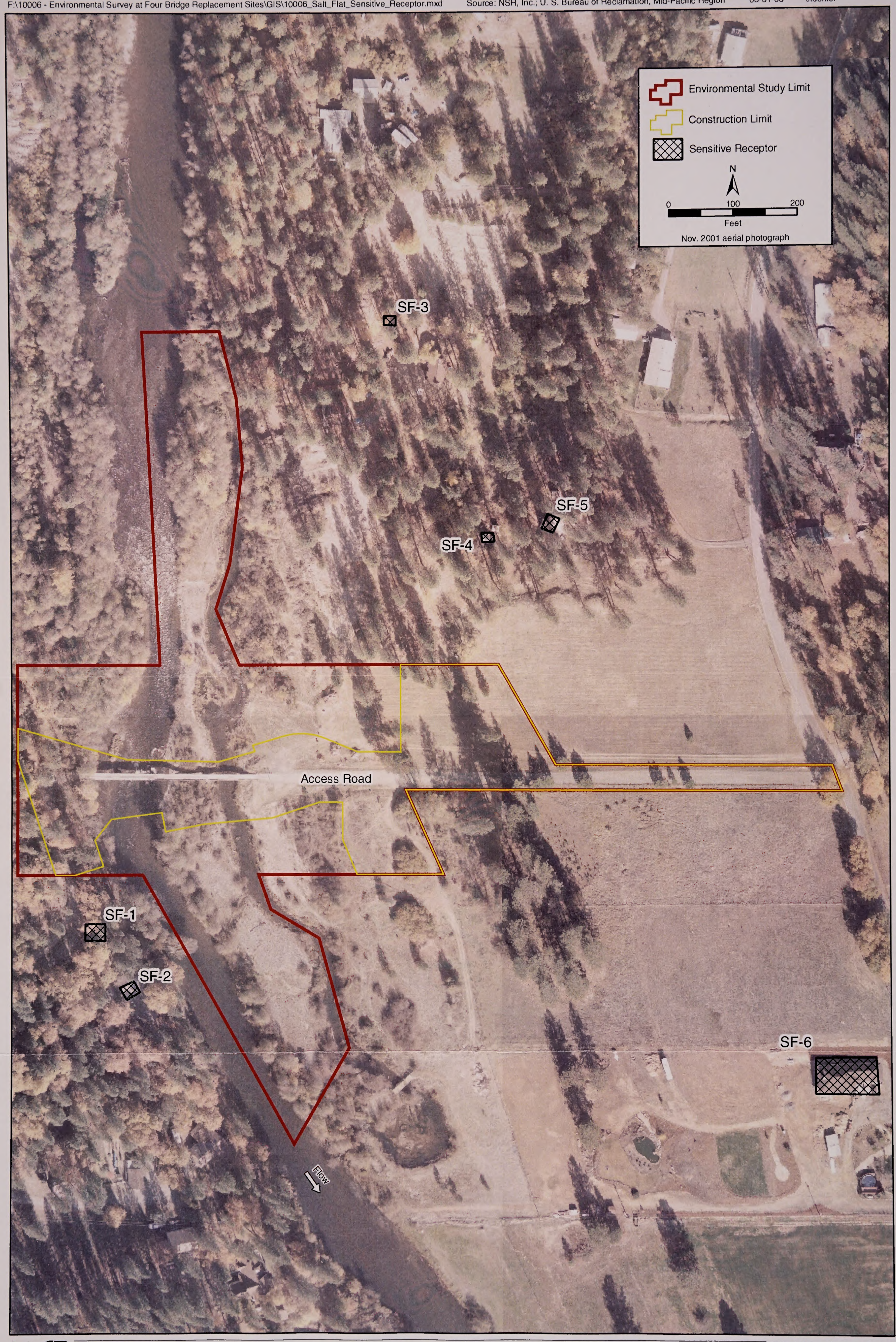
Biggers Road

Three sensitive receptors exist within the project study area, including the Treadwell and Biggers residences (**Figure 3.16-1d**). Sensitive receptors identified within 1,000 feet of the Biggers Road Bridge are listed below in **Table 3.16-5**.

TABLE 3.16-5
SENSITIVE NOISE RECEPTORS – BIGGERS ROAD BRIDGE SITE

Receptor Number	Description	Approximate Distance to Construction Limit (ft)	Approximate Distance to Nearest Access Road (ft)
TW-1	Private Residence	132	302
TW-2	Private Residence	58	347
TW-3	Private Residence	525	350

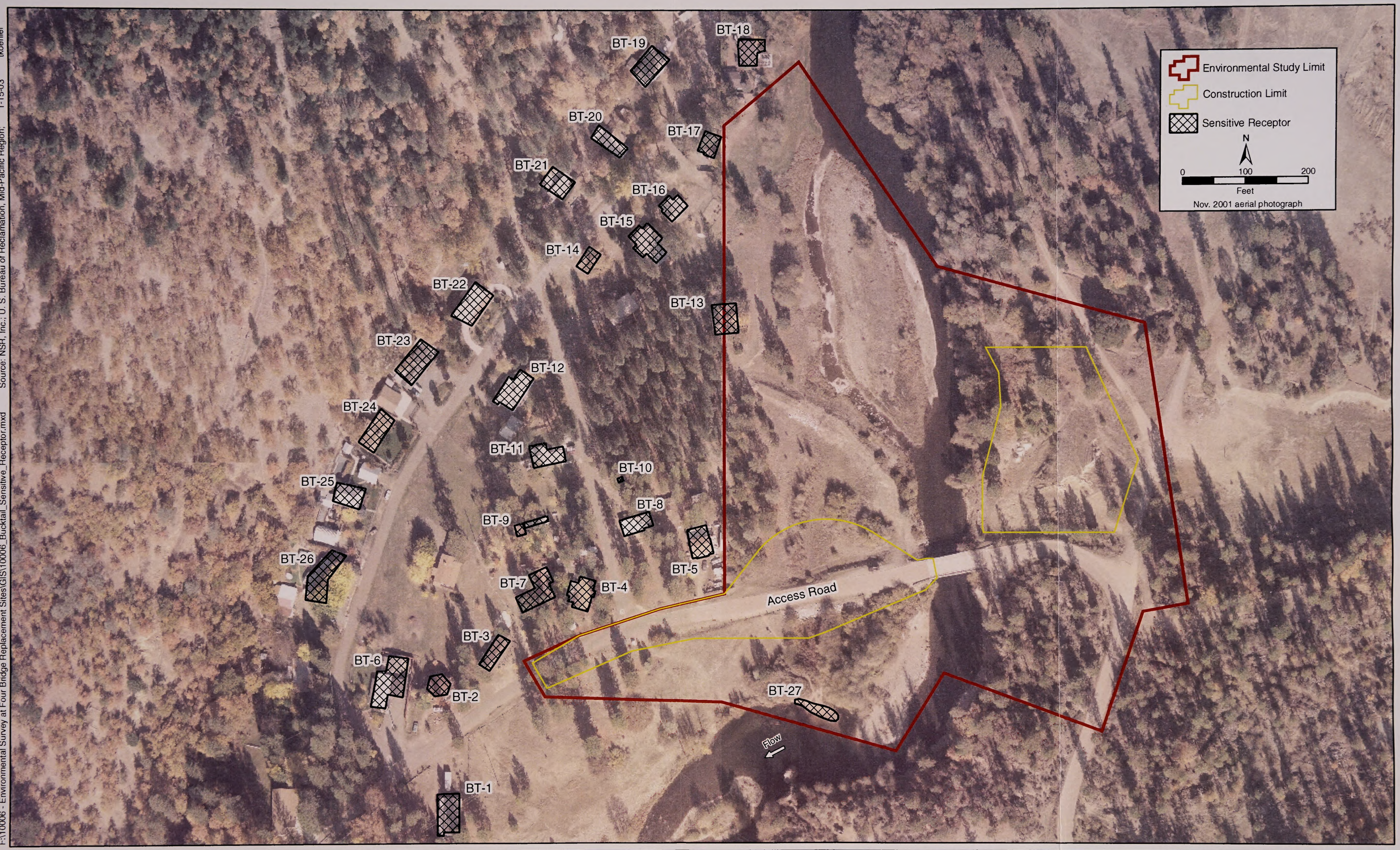
F:\10006 - Environmental Survey at Four Bridge Replacement Sites\GIS\10006_Salt_Flat_Sensitive_Receptor.mxd Source: NSR, Inc.; U. S. Bureau of Reclamation, Mid-Pacific Region 03-31-03 tkoehler



North State Resources, Inc.

Trinity River Bridges Project

Figure 3.16-1a
Salt Flat Bridge
Sensitive Receptor Locations

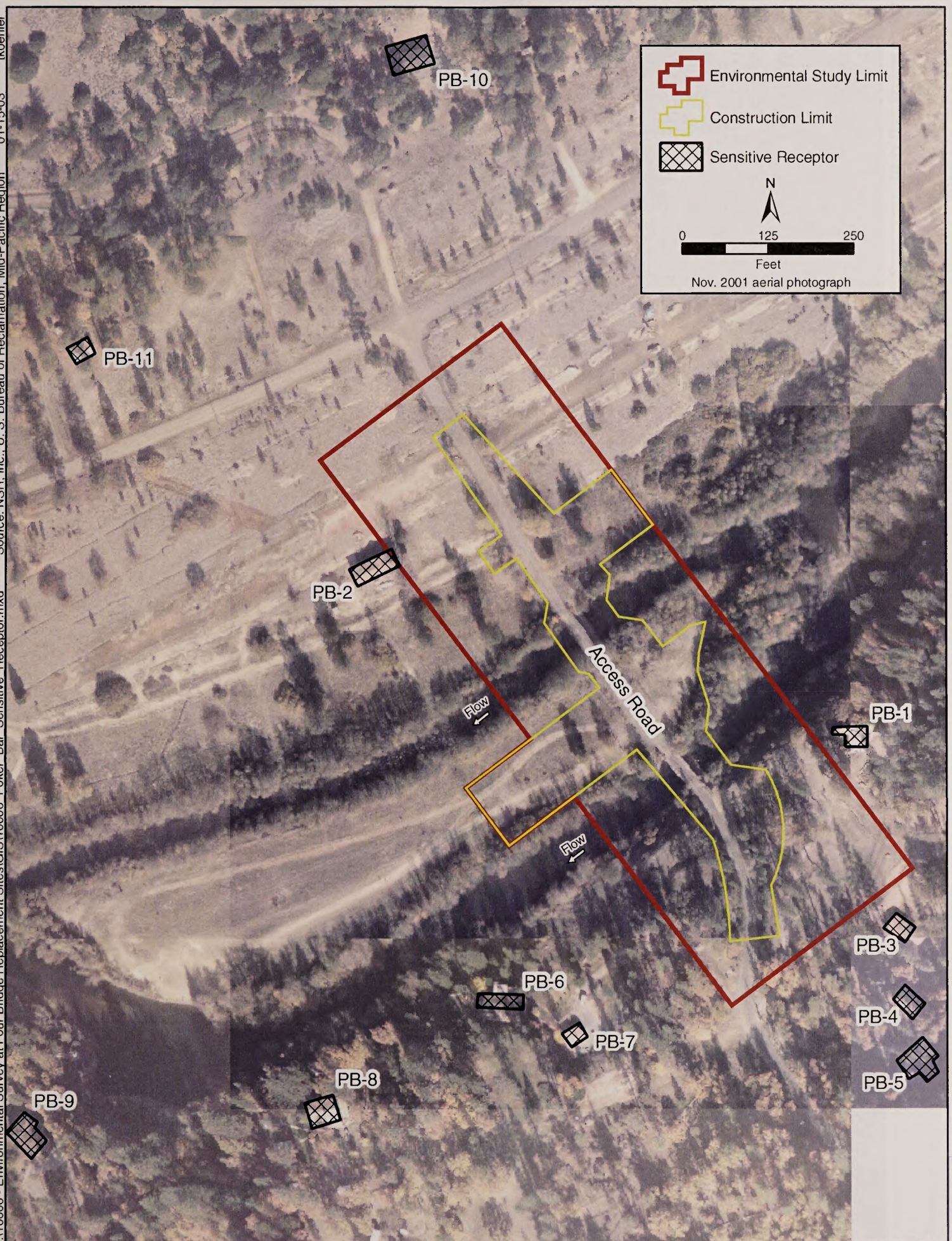


F:\10006 - Environmental Survey at Four Bridge Replacement Sites\GIS\10006_Bucktail_Sensitive_Receptor.mxd Source: NSR, Inc.; U. S. Bureau of Reclamation, Mid-Pacific Region; 1-15-03 tkoehler

North State Resources, Inc.

Trinity River Bridges Project

Figure 3.16-1b
Bucktail Bridge
Sensitive Receptor Locations



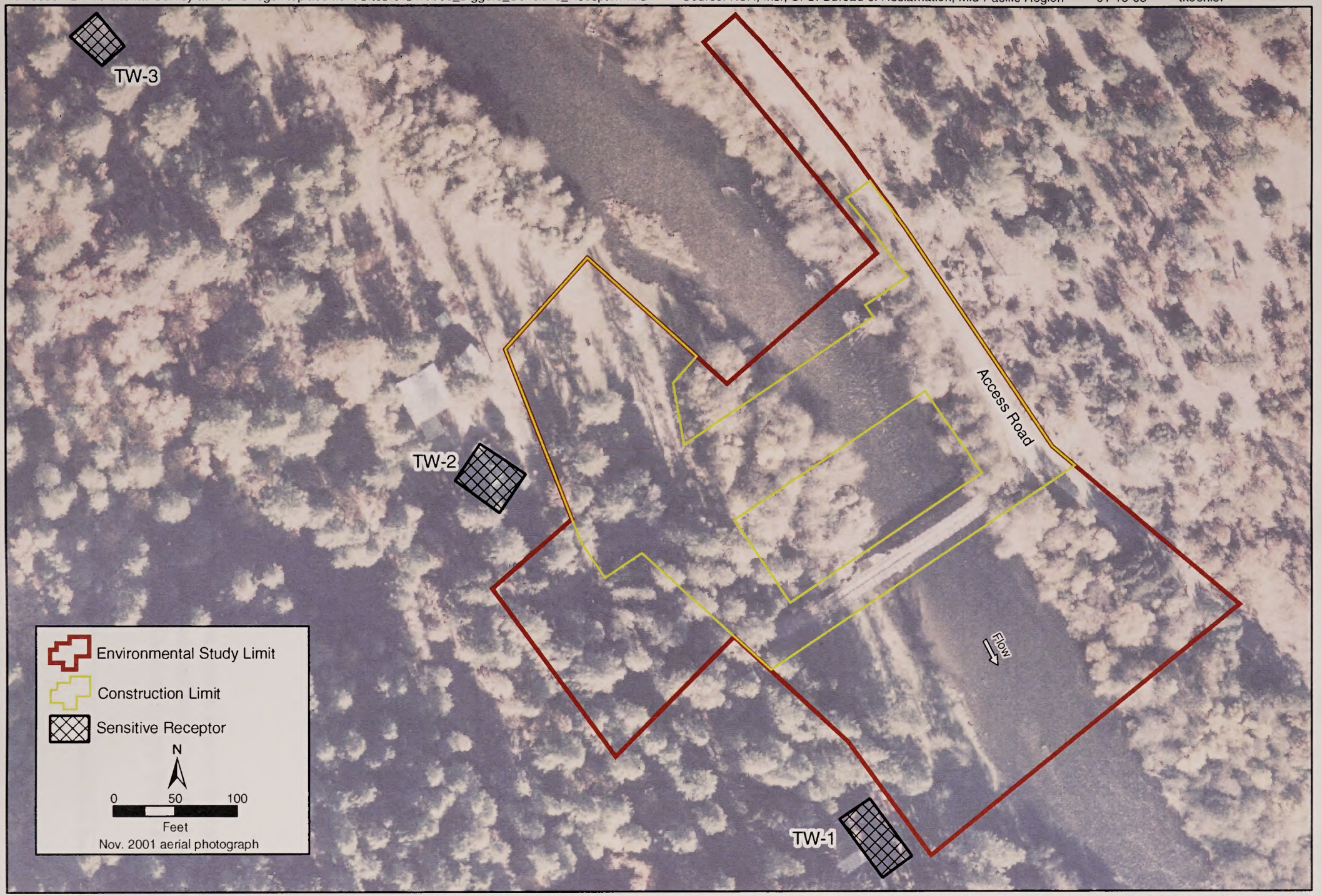
F:\10006 - Environmental Survey at Four Bridge Replacement Sites\GIS\10006_Poker_Bar_Sensitive_Receptor.mxd Source: NSR, Inc.; U. S. Bureau of Reclamation, Mid-Pacific Region 01-15-03 tkoehler

Trinity River Bridges Project

North State Resources, Inc.

Figure 3.16-1c
Poker Bar Bridges
Sensitive Receptor Locations

F:\10006 - Environmental Survey at Four Bridge Replacement Sites\GIS\10006_Biggers_Sensitive_Receptor.mxd Source: NSR, Inc.; U. S. Bureau of Reclamation, Mid-Pacific Region 01-15-03 tkoehler



Trinity River Bridges Project

North State Resources, Inc.

Figure 3.16-1d
Biggers Road Bridge
Sensitive Receptor Locations

Table 3.16-6 lists the U.S. General Services Administration maximum noise levels allowed for government contract construction activities.

TABLE 3.16-6
U.S. GENERAL SERVICES ADMINISTRATION MAXIMUM NOISE LEVELS ALLOWABLE FOR GOVERNMENT CONTRACTS

Equipment	Sound Level (dBA) at 50 feet
Earthmoving	
Front loader	75
Backhoe	75
Dozer	75
Tractor	75
Scraper	80
Grader	75
Truck	75
Paver	80
Impact	
Pile driver	95
Jack hammer	75
Rock drill	80
Pneumatic drill	80
Materials handling	
Concrete mixer	75
Concrete pump	75
Crane	75
Derrick	75
Stationary	
Pump	75
Generator	75
Compressor	75
Other	
Saw	75
Vibrator	75

Source: Sincero and Sincero (1996) as cited in Draft Anderson-Cottonwood Irrigation District Fish Passage Improvement Project Proposed FONSI/EA/Initial Study (1999).

3.16.2 RELEVANT PLANS AND POLICIES

Trinity County

Trinity County has no specific noise standards, but a draft noise element of the General Plan and implementing ordinance are under review for adoption (Brown-Buntin 2002). The current adopted noise element that was prepared in 1974 makes only recommendations and has no implementing ordinance. The Draft County Noise Ordinance,

which is scheduled to go to the County Board of Supervisors for approval in June 2003, includes the following standards and exceptions that are applicable to the proposed Project:

Exterior Noise Standards

A. It is unlawful for any person at any location within the unincorporated area of the County to create any noise, or to allow the creation of any noise, on property owned, leased, occupied or otherwise controlled by such person which causes the exterior noise level when measured at any affected single- or multiple-family residence, school, hospital, church or public library situated in either the incorporated or unincorporated area to exceed the noise level standards as set forth [in **Table 3.16-7**]:

TABLE 3.16-7
TRINITY COUNTY EXTERIOR NOISE STANDARDS

Acceptable Noise Limit	Daytime 7:00 AM to 10:00 PM	Nighttime 10:00 PM to 7:00 AM
Hourly Equivalent Sound Level (L_{eq}[2], dB)	55	45
Maximum level, dB	75	45

Source: Brown-Buntin 2002

Noise Source Exemptions

C. Noise sources associated with construction, provided such activities do not take place before 7:00 AM or after 7:00 PM on any day except Sunday. No construction shall take place on Sundays.

G. Noise sources associated with work performed by private or public utilities in the maintenance or modification of its facilities.

The noise standard in the zoning ordinance pertains to industrial districts only. Under Section 23 B, the ordinance reads:

Uses permitted without a use permit except when these uses listed in this section exceed the following thresholds; a use permit shall be required:

1. Exceeds 65 dBA at the property line of use, or
2. Any use which generates air emissions, liquid, solid, or hazardous wastes, noise, offensive odors, smoke, dust, or glare in a manner which may be detrimental to the public health, safety, or welfare shall require a use permit.

3.16.3 Environmental Consequences/Impacts and Mitigation Measures

Methodology

Since the proposed Project would not result in a noticeable increase in traffic volume, the focus of this impact analysis will be on construction noise. Construction noise impacts are based upon an assumed mixture of construction equipment and related noise levels. Noise levels of individual types of equipment are based on industry averages. Assumptions related to construction equipment mixture and industry noise averages were used to evaluate

[2] L_{eq}= constant sound level that contains the same total energy as the actual time-varying sound level over a one-hour period.

construction-related noise impacts. Construction of a new bridge and subsequent demolition of the old, existing bridge structure would occur during a relatively short time period (e.g. 6-12 months). Associated activities would consist of several distinct phases, including site preparation (minor grading and grubbing), excavation, foundation, erection, finishing, and demolition. Noise levels for project construction were taken from the literature assuming a typical mix of construction equipment used in the construction of public works projects (Bolt et al. 1971). These construction noise levels were used to determine the resultant noise levels at the nearest sensitive receptors.

Significance Criteria

Based on Appendix G of the *CEQA Guidelines*, the proposed Project is considered to have a significant direct noise impact if it results in a noise increase and:

- Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels;
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above existing levels; and
- Exposure of persons to or generation of noise levels in excess of standards established in the Trinity County General Plan Noise Element and associated noise ordinance, or applicable standards of other agencies.

Impacts and Mitigation Measures

Table 3.16-8 summarizes the potential noise impacts resulting from construction of the proposed Project.

TABLE 3.16-8
SUMMARY OF NOISE IMPACTS FROM THE PROPOSED TRINITY RIVER BRIDGES PROJECT

Impact	Project Site	No-Action Alternative	Proposed Action	Alternative 1	Alternative 2
1. Construction activities associated with the proposed Trinity River Bridges Project would result in temporary noise impacts to nearby sensitive receptors.	Salt Flat	NI	S	S	S
	Bucktail	NI	S	S	N/A
	Poker Bar	NI	S	S	N/A
	Biggers Road	NI	S	S	N/A

Notes:
LS=Less than Significant S = Significant NI = No Impact SU = Significant Unavoidable
N/A=Not Applicable

Salt Flat Bridge

Impact 3.16-1: Construction activities associated with the proposed Trinity River Bridges Project would result in temporary noise impacts to nearby sensitive receptors. ***No Impact for No-Action Alternative; Significant Impact for Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, no change in ambient noise levels will occur because a new bridge will not be constructed at the Salt Flat site. No adverse noise impacts will occur as a result of the No-Action Alternative.

Proposed Action (Replacement Downstream, Private Ownership)

Typical construction noise levels are shown in **Table 3.16-9**. **Table 3.16-9** assumes operations of various construction equipment, as indicated in **Table 3.16-10** (Construction Equipment Noise).

TABLE 3.16-9
TYPICAL CONSTRUCTION NOISE LEVELS

Construction Stage	Noise Level (dBA, L_{eq})[a]
Ground Clearing	84
Excavation	89
Foundation	78
Erection	87
Finishing	89

[a] Average noise levels 50 feet from the noisiest source and 200 feet from the rest of the equipment associated with a given construction stage. Noise levels correspond to public works projects in a typical suburban ambient noise environment (50 dBA ambient environment).

Source: Bolt et al. (1971)

TABLE 3.16-10
CONSTRUCTION EQUIPMENT NOISE

Type of Equipment	Maximum Level, dBA at 50 feet
Dump Truck	88
Concrete Mixer (truck)	85
Scrapers	88
Bulldozers	87
Heavy Trucks	88
Backhoe	85
Pneumatic Tools	85

Source: Environmental Noise Pollution (Cunniff 1977)

Six sensitive receptors (private residences) are located just outside the Salt Flat Bridge ESL (**Figure 3.16-1a**). Sensitive receptors identified within 1,000 feet of the Salt Flat Bridge are listed in **Table 3.16-2**. During the construction phases of the Proposed Action, noise from construction activities would dominate the noise environment in the immediate area. Activities involved in construction would generate noise levels ranging from 70 to 90 dBA at a distance of 50 feet (**Table 3.16-9**). No sensitive receptors are located within 50 feet of the construction limit or nearest access road. Construction activities would be temporary in nature, typically occurring during normal working hours. While daytime construction noise would be annoying at times in localized areas, it would be considered less than significant due to the short-term nature of the event, assuming construction activities are limited to daytime hours. However, nighttime construction could result in annoyance or sleep disruption for nearby residences and would be significant. Construction hours during the first year fall and winter will be extended at Salt Flat during the in-river construction period (September 1st through October 15th) to 7:00 AM to 10:00 PM, Monday through Saturday. No construction activities would occur on Sundays.

Alternative 1 (Replacement Upstream, Private Ownership)

Construction impacts will be similar for each project alternative – the primary difference is the distance from each sensitive receptor to each project alternative. Temporary noise impacts under Alternative 1 would be similar to the Proposed Action, except that upstream noise receptors would occur approximately 30 feet closer to the construction limit. Under Alternative 1, no sensitive receptor would occur within 100 feet of the construction limit or nearest access road. Construction activities would be temporary in nature, typically occurring during normal working hours. While daytime construction noise would be annoying at times in localized areas, it would be considered less than significant due to the short-term nature of the event, assuming construction activities are limited to daytime hours. However, nighttime construction could result in annoyance or sleep disruption for nearby residences and would be significant. Construction hours during the first year fall and winter will be extended at Salt Flat during the in-river construction period (September 1st through October 15th) to 7:00 AM to 10:00 PM, Monday through Saturday. No construction activities would occur on Sundays.

Alternative 2 (Replacement Upstream, Public Ownership)

Temporary noise impacts under Alternative 1 would be similar to Alternative 2, because the bridge locations and proposed construction activities under Alternatives 1 and 2 are nearly identical. While daytime construction noise would be annoying at times in localized areas, it would be considered less than significant due to the short-term nature of the event, assuming construction activities are limited to daytime hours. However, nighttime construction could result in annoyance or sleep disruption for nearby residences and would be significant. Construction hours during the first year fall and winter will be extended at Salt Flat during the in-river construction period (September 1st through October 15th) to 7:00 AM to 10:00 PM, Monday through Saturday. No construction activities would occur on Sundays.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1; Alternative 2

SF-1a: Construction activities near residential areas would be scheduled between 7:00 AM and 7:00 PM, Monday through Saturday, except for the in-river construction period when construction would occur between 7:00 AM and 10:00 PM. No construction activities shall be schedule for Sundays or other hours and days, as established by the local jurisdiction (e.g. Trinity County).

SF-1b: Specifically with regards to the in-river construction period, the BOR shall include the following noise monitoring requirements in the construction specifications:

- Noise levels from construction activities may exceed the values shown in **Table 3.16-7** between the hours of 7:00 AM and 7:00 PM, Monday through Saturday. Limits described in **Table 3.16-7** will be imposed on Sundays.
- Noise monitoring shall be conducted at approved locations. Noise monitors shall be located within 50 feet of affected residences. Microphones should be positioned three to five feet above ground and away from reflective sources.

- Sound pressure levels shall be measured in decibels with a meter A-weighting network (Unit of measure is dBA; Sound level meter, ANSI A1.4A-1985, Type 1 or Type 2; Use fast response for impulse noise and slow response for other noise measurements).
- If results of the noise monitoring determine it is necessary, a noise ordinance variance request shall be filed, in coordination with the BOR, to the Trinity County Planning Department noise enforcement officer at P.O. Box 2819, Weaverville, CA 96093. The variance request shall be submitted at 30 days before the variance would be required and include a complete list of measures taken to comply and rationale for why strict compliance is not feasible.

SF-1c: The BOR shall require in construction specifications that the contractor maintain all construction equipment with manufacturer's specified noise muffling devices.

SF-1d: The BOR shall require in construction specifications that the contractor place all stationary noise generating equipment as far away as feasibly possible from sensitive noise receptions or in an orientation minimizing noise impacts (i.e., behind existing barriers, storage piles, unused equipment).

Significance after Mitigation: *Less than Significant.*

Bucktail Bridge

Impact 3.16-1: Construction activities associated with the proposed Trinity River Bridges Project would result in temporary noise impacts to nearby sensitive receptors. ***No Impact for No-Action Alternative; Significant Impact for Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no change in ambient noise levels will occur because the west approach roadway and the existing culvert will not be replaced at the Bucktail Bridge site. No adverse noise impacts will occur as a result of the No-Action Alternative.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

Twenty-seven sensitive receptors (private residences and one recreation area) are located just outside the Project ESL. One of these receptors intersects with the ESL boundary. Bucktail Hole, located within the ESL boundary, is considered a sensitive receptor for the purposes of this evaluation (**Figure 3.16-1b**). Sensitive receptors identified within 1,000 feet of the Bucktail Bridge are listed in **Table 3.16-3**. During the construction phases of the Proposed Action, noise from construction activities would dominate the noise environment in the immediate area. Activities involved in construction would generate noise levels ranging from 70 to 90 dBA at a distance of 50 feet (**Table 3.16-9**). Two sensitive receptors are located within 50 feet of the construction limit of the Proposed Action at the Bucktail site. Construction activities would be temporary in nature, typically occurring during normal working hours. While daytime construction noise would be annoying at times in localized areas, it would be considered less than significant due to the short-term nature of the event, assuming construction activities are limited to daytime hours.

Alternative 1 (Raise Existing Upstream Levee)

Temporary noise impacts under Alternative 1 would generally be less than the Proposed Action because the levee work (Alternative 1) would require fewer construction hours than the roadway and culvert improvements (Proposed Action) and because no sensitive receptors are located within 50 feet of the construction limit for Alternative 1 at the Bucktail site. Under Alternative 1, no sensitive receptor would occur within 100 feet of the construction limit or nearest access road. Construction activities would be temporary in nature, typically occurring during normal working

hours. While daytime construction noise would be annoying at times in localized areas, it would be considered less than significant due to the short-term nature of the event, assuming construction activities are limited to daytime hours.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1

BT-1a: Construction activities near residential areas would be scheduled between 7:00 AM and 7:00 PM, Monday through Saturday, or other hours and days as established by the local jurisdiction (e.g., Trinity County).

BT-1b: The BOR shall require in construction specifications that the contractor maintain all construction equipment with manufacturer's specified noise muffling devices.

BT-1c: The BOR shall require in construction specifications that the contractor place all stationary noise generating equipment as far away as feasibly possible from sensitive noise receptions or in an orientation minimizing noise impacts (i.e., behind existing barriers, storage piles, unused equipment).

Significance after Mitigation: *Less than Significant*

Poker Bar Bridges

Impact 3.16-1: Construction activities associated with the proposed Trinity River Bridges Project would result in temporary noise impacts to nearby sensitive receptors. ***No Impact for No-Action Alternative; Significant Impact for Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no change in ambient noise levels will occur because new bridges will not be constructed at the Poker Bar site. No adverse noise impacts will occur as a result of the No-Action Alternative.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

Eleven sensitive receptors (private residences) are located just outside the Project ESL, although no sensitive receptors are situated inside the ESL boundary (**Figure 3.16-1c**). Sensitive receptors identified within 1,000 feet of the Poker Bar Bridges are listed in **Table 3.16-4**. During the construction phases of the Proposed Action, noise from construction activities would dominate the noise environment in the immediate area. Activities involved in construction would generate noise levels ranging from 70 to 90 dBA at a distance of 50 feet (**Table 3.16-9**). No sensitive receptors are located within 100 feet of the construction limit or nearest access road. Construction activities would be temporary in nature, typically occurring during normal working hours. While daytime construction noise would be annoying at times in localized areas, it would be considered less than significant due to the short-term nature of the event, assuming construction activities are limited to daytime hours.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Temporary noise impacts under Alternative 1 would be similar to the Proposed Action, except that downstream noise receptors would occur approximately 35 feet closer to the construction limit. Under Alternative 1, one sensitive receptor would occur within 100 feet of the construction limit. Construction activities would be temporary in nature, typically occurring during normal working hours. While daytime construction noise would be annoying at times in localized areas, it would be considered less than significant due to the short-term nature of the event, assuming construction activities are limited to daytime hours.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1

PB-1a: Construction activities near residential areas would be scheduled between 7:00 AM and 7:00 PM, Monday through Saturday, or other hours and days as established by the local jurisdiction (e.g., Trinity County).

PB –1b: The BOR shall require in construction specifications that the contractor maintain all construction equipment with manufacturer's specified noise muffling devices.

PB –1c: The BOR shall require in construction specifications that the contractor place all stationary noise generating equipment as far away as feasibly possible from sensitive noise receptions or in an orientation minimizing noise impacts (i.e., behind existing barriers, storage piles, unused equipment).

Significance after Mitigation: *Less than Significant.*

Biggers Road Bridge

Impact 3.16-1: Construction activities associated with the proposed Trinity River Bridges Project would result in temporary noise impacts to nearby sensitive receptors. ***No Impact for No-Action Alternative; Significant Impact for Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no change in ambient noise levels will occur because a new bridge will not be constructed at the Biggers Road site. No adverse noise impacts will occur as a result of the No-Action Alternative.

Proposed Action (Replacement Upstream)

Three sensitive receptors (private residences) are located just outside the Project ESL, although no sensitive receptors are situated inside the ESL boundary (**Figure 3.16-1d**). Sensitive receptors identified within 1,000 feet of the Biggers Road Bridge are listed in **Table 3.16-5**. During the construction phases of the Proposed Action, noise from construction activities would dominate the noise environment in the immediate area. Activities involved in construction would generate noise levels ranging from 70 to 90 dBA at a distance of 50 feet (**Table 3.16-9**). No sensitive receptors are located within 50 feet of the construction limit or nearest access road. Construction activities would be temporary in nature, typically occurring during normal working hours. While daytime construction noise would be annoying at times in localized areas, it would be considered less than significant due to the short-term nature of the event, assuming construction activities are limited to daytime hours.

Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

Temporary noise impacts under Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A.

Proposed Action; Alternative 1

BR -1a: Construction activities near residential areas would be scheduled between 7:00 AM and 7:00 PM, Monday through Saturday, or other hours and days as established by the local jurisdiction (e.g., Trinity County).

BR –1b: The BOR shall require in construction specifications that the contractor maintain all construction equipment with manufacturer's specified noise muffling devices.

BR –1c: The BOR shall require in construction specifications that the contractor place all stationary noise generating equipment as far away as feasibly possible from sensitive noise receptions or in an orientation minimizing noise impacts (i.e., behind existing barriers, storage piles, unused equipment).

Significance after Mitigation: *Less than Significant.*

SECTION 3.17

Public Services and Utilities/Energy

3.17 Public Services and Utilities/Energy

This section is based on review of local planning documents for the project area, telephone communication with local service providers, and field reconnaissance. The section evaluates potential impacts to public services and utilities from construction and long-term operation of the proposed Project. Additionally, this section addresses potential impacts to energy resources due to substantial or wasteful use of energy resources during project construction.

3.17.1 Affected Environment/Environmental Setting

Regional Setting

Water Supply and Distribution

Community service districts provide water services to some County communities, including Weaverville, Lewiston and Hayfork. In some instances, local service districts provide water service to small residential areas. A large portion of the population is served by onsite water developments outside these communities. These developments include wells, springs and surface intake facilities along the Trinity River and its tributaries.

Surface Water

Surface water sources include pumps and stilling wells in the Trinity River, as well as developed springs throughout the area. Surface water is primarily used for domestic purposes, including incidental agriculture use for gardens, livestock and fire protection.

Groundwater

Groundwater wells provide water for domestic purposes in and adjacent to the Project area. Bucktail Mutual Water Company utilizes two wells to provide water service to the Bucktail Subdivision. Private residences utilize groundwater as their primary or secondary water source in a number of areas.

The Recent Alluvium formation is the predominant, fresh water-yielding formation along the Trinity River. This formation underlies the project sites at varying depths. Water quality is highly variable, dependent on local geologic features. The most common potential hazards to groundwater quality in the County involve the concentration of nitrates and dissolved solids from agricultural practices and septic tank failures.

Water Treatment Facilities

Water treatment facilities vary widely throughout the County. Those that provide service to communities are operated in accordance with established EPA guidelines. Water supplies that serve small subdivisions and private residences often have filtration and treatment systems that are used to address local water quality concerns.

Wastewater Collection and Treatment

Trinity County has very limited wastewater collection and treatment facilities. Septic tanks and drain fields are utilized throughout most of the County. No public systems are available to residents in the Project area.

Natural Gas Supply and Distribution

Natural gas providers do not serve northern Trinity County. Liquefied Propane Gas is provided through distributors in Weaverville and Redding to residents on a case-by-case basis.

Solid Waste Collection and Disposal

Trinity County Sanitation Service provides a subscription collection service to residents of northern Trinity County. Several remote collection sites are available to resident's self-hauled residential, commercial, and industrial refuse, green waste, recyclables, and household hazardous materials generated in the County. All material collected is transported to the landfill in Anderson, California.

Law Enforcement

The Trinity County Sheriff's Department (TCSD) provides law enforcement for the entire County. The TCSD headquarters is located in Weaverville, with a substation in Hayfork. Resident officers are stationed throughout the County and serve as the primary contact point for local communities.

The CHP operates from an office in Weaverville and serves as the primary law enforcement agency for state facilities and transportation corridors. The CHP works closely with the TCSD to provide law enforcement coverage to Trinity County.

The BLM and the USFS provide law enforcement in association with their land management activities. Although the focus of these officers is actions on public lands, they work closely with other agencies to provide law enforcement support in Trinity County.

Fire Protection / Emergency Services

Sixteen volunteer fire departments (located throughout the County), CDF, and USFS currently meet Trinity County fire protection needs. Local government (in this case the County) is responsible for structural fire protection and rescue services in Trinity County throughout the year. Trinity Life Support Ambulance, and Southern Trinity Area Rescue (STAR) provide ambulance services, while the TCSD maintains an active Search and Rescue Team. The 16 volunteer fire departments include Douglas City, Post Mountain, Hayfork, Wildwood, Junction City, Hyampom, Lewiston, Trinity Center, Coffee Creek, Salyer, Hawkins Bar, Weaverville, Southern Trinity, Downriver, Barker Valley, and Kettenpom-Zenia. The volunteer fire departments currently have a membership of 250 (as of January 1, 2002). Only Trinity Center, Hayfork, Lewiston, and Weaverville derive limited tax revenues. The volunteer fire departments routinely respond outside of their legal boundaries to any emergency to which they are dispatched by the 911 center maintained by the TCSD.

By law, the CDF is responsible for wildland fire protection on all private lands within Trinity County and the USFS is responsible for wildland fire protection on all National Forest lands. CDF and USFS fire stations are staffed only during the summer fire season, which normally lasts from May to November. During the summer fire season, all fire agencies in the County respond to any reported fire, regardless of legal jurisdiction. CDF and USFS are legally and financially responsible to manage wildland fires within their jurisdiction; however, the volunteer fire departments are often first to respond and first to arrive on the scene of a spreading wildfire. CDF and USFS depend on the volunteer fire departments to provide the initial attack on wildfires, and both agencies have agreements with the volunteer fire

departments to reimburse the departments for their assistance. The existing bridges across the Trinity River are a vital component in providing initial response to fires and other emergencies.

Telephone Service

A number of providers offer telephone service to residents of Trinity County. At the present time, no high-speed or fiber optic services are available in the County. In some remote areas, satellite service is the only communication option available to customers.

Electrical Service

Trinity Public Utilities District serves most of Trinity County. A portion of the downriver area and all areas south of South Fork Mountain (most of Southern Trinity) are served by Pacific Gas & Electric Company.

Schools

There are two elementary school districts and one high school district in the general vicinity of the Project. The Lewiston Elementary School District operates a primary school (grades K-8) in Lewiston. It is associated with the community of Lewiston and includes residents along Rush Creek, residents along Highway 299 West between Buckhorn Summit and Poker Bar, and residents along the Trinity River below Trinity Dam. The Douglas City Elementary School District operates a primary school (grades K-8) in Douglas City. This District serves residents along Highway 299 West from Poker Bar to Douglas City, and residents along the Trinity River. Students in these elementary schools attend ninth through twelfth grades at Trinity High School in Weaverville.

Due to the remote location and isolation of some residents, bus service is provided for residents throughout the Project area. Only one of the bridges under consideration in this project is currently used to provide bus access. Bucktail Bridge, a Trinity County structure, is used to provide school bus service to the Bucktail subdivision. Weight restrictions and ownership issues limit the ability to provide bus service to residents of Salt Flat, Poker Bar and Biggers Road residential areas.

Local Setting

Lewiston Community Plan Area

The Lewiston Community Plan Area includes the area centered on the Trinity River, from Lewiston Lake to slightly downstream of the confluence of Grass Valley Creek and the Trinity River. Project sites within this Plan Area include Salt Flat and Bucktail.

Local governmental units, such as the Lewiston Community Services District (LCSD) and the Lewiston School District, provide most public services within the Lewiston Plan Area. The LCSD provides fire protection, emergency medical aid, and recreation services to district residents.

Water Supply and Distribution

The majority of the development in the Lewiston community is served by mutual or private water systems. Bucktail Mutual Water Company, which is regulated by the State of California, is a community system that serves the entire Bucktail subdivision. Development outside of the community core area and Bucktail subdivision relies upon

individual wells, springs and river intake systems. Water is generally plentiful throughout the Lewiston Plan Area although care must be taken to protect the water supply from contamination from septic systems and other sources.

Surface Water

The primary surface water source is the Trinity River. It bisects the Project area, and is subject to dramatic changes in flow on a reoccurring basis. A number of residents utilize this water, either through direct intakes or stilling wells that intercept shallow subsurface flow adjacent to the river. These developed sources are typically located within the active channel or floodplain and require a collection system, pump and distribution system to service individual residences.

The Salt Flat site has several water intake developments that are within the Project ESL (**Figure 3.4-3**), and in some cases immediately adjacent to the existing bridge site. A well is situated approximately 100 feet upstream from the left (east) roadway approach, and a private service waterline follows the north edge of the road easement along the left (east) approach. There is also a well immediately downstream of the right (west) abutment) and a service line located in the road. There are no utilities in the vicinity of the Bucktail Bridge.

Groundwater

Due to the location and nature of the terrain, groundwater is associated with all of the project sites. The preliminary geologic investigation identified alluvial material with groundwater levels that are expected to fluctuate seasonally. No domestic groundwater sources were identified within the study limits for Salt Flat and Bucktail Bridges, although Bucktail is served by two deep wells and a distribution system.

Wastewater Treatment and Collection

Two community sewage disposal systems are located in the community core area. The major constraints to on-site sewage disposal are poor soils, saturated soils, and steep slopes. According to the NRCS, most of the soils in the Lewiston Plan Area are moderately to severely restricted for home site development. The predominance of decomposed granite soils in the Plan Area presents significant problems for on-site sewage disposal.

Solid Waste Collection and Disposal

The County's single landfill is located in Weaverville, adjacent to the existing Lonnie Pool Airport. This landfill now operates as a transfer station. Solid waste is collected from transfer stations throughout the County and delivered to the Weaverville facility. From here, all material is currently transported by truck to the landfill located in Anderson, California.

Fire Protection

CDF has identified all of the Lewiston Plan Area as being a high fire hazard area. The rural nature of the Plan Area and limited fire station locations result in relatively slow response times, particularly in winter.

Fire protection within or adjacent to the Plan Area is provided by the LCSD and CDF. LCSD maintains three engines, a rescue vehicle, and an ambulance at its Texas Street station and responds to fires and aid calls year-round. The station has a 23-person volunteer crew and chief. LCSD crews respond to approximately four structure fires (not including flue fires) and ten wildland fires a year.

CDF coverage of the Lewiston area varies by season. During the winter, CDF responds from Weaverville with one engine, if personnel are present. In the summer, CDF is equipped to provide a total of three engines with 2,250 gallons of water and 12-13 fire fighters; two engines respond from Fawn Lodge and another engine can respond from Weaverville. Minimum response time in the Lewiston Plan Area is 10-15 minutes or longer, depending on access (15-20 minutes on average). Half of these responses are typically for structure or flue fires and half are for wildland fires.

During the summer, a USFS helicopter and five-person crew are available during daylight hours. During daylight, CDF also has automatic dispatch of a fire retardant bomber and lead plane from Redding. Three fire lookouts (Weaver Bally, Bully Choop, and Bonanza King) allow for quick fire detection throughout the Plan Area.

Schools

The Area currently has a student K-12 population of 211. Of these, 148 attend Lewiston elementary School and 63 attend Trinity High School in Weaverville. The State-rated capacity of the elementary school is 300.

Douglas City Community Plan Area

The Douglas City Community Plan Area includes the area centered on the Trinity River from Grass Valley Creek to slightly downstream of Steiner Flat. Project sites within the Douglas City Plan Area include Poker Bar and Biggers Road. The Douglas City Community Services District (DCCSD) serves the 19 square miles around the Douglas City core community area; the only concentrated residential area in the Plan Area not serviced is Poker Bar (County 1987).

Water Supply and Distribution

Only an estimated 50 households in the Douglas City Plan Area rely on community or mutual water systems. Reliance on individual wells, springs and river intake is expected to continue with future development.

Within the Plan Area, surface water is more frequently utilized for domestic purposes than is deep well water. Development of surface water tends to be less expensive than development of deep wells. Additionally, concentrations of minerals including iron, magnesium, and calcium have been reported in deep well water in portions of the Plan Area. Finally, competition between adjacent wells can decrease water availability. A large portion of the Plan Area (primarily Browns Creek Watershed, Weaver Creek Watershed, and the upper Indian Creek Watershed) is proposed to incorporate Critical Watershed Overlay Zoning to ensure that future land divisions in these areas must develop individual wells. This is to ensure adequate surface water for a variety of existing uses.

Aside from floodplain areas and the proposed industrial area on State Highway 3, the topography of the Plan Area is generally sufficient to properly drain development sites with only minor modifications.

Surface Water

The primary surface water source is the Trinity River. It bisects the Project, and is subject to dramatic changes in flow on a reoccurring basis. All the residents at the Biggers Road Bridge location utilize this water, either through direct intakes or stilling wells that intercept shallow subsurface flow adjacent to the river. These developed sources are typically located within the active channel or floodplain and require a collection system, pump and distribution system to service individual residences.

The Biggers Road site has several water intake developments that are within the Project ESL, and in some cases immediately adjacent to the existing bridge site. A shallow domestic water well and pump are located about 20 feet upstream of pier 3, on the west side of the Trinity River. Field observations indicated river intakes have been used at the Poker Bar and Biggers Road locations; however, it was unclear if these were operable. A private water tap is present about 50 feet upstream of the left (east) channel bridge on Poker Bar island and an access to intake fire suppression water is located about 50 feet downstream. In addition, a white PVC pipe is attached underneath the timber decking, along the north face of the left channel bridge, and crosses to the south of the bridge at the second abutment.

Groundwater

Due to the location and nature of the terrain, groundwater is associated with all of the Project sites. The preliminary geologic investigation identified alluvial material with groundwater levels that are expected to fluctuate seasonally. No domestic groundwater sources were identified within the study limits for the Poker Bar and Biggers Road Bridges; however, a private water tap is present about 50 feet upstream of the left channel bridge on Poker Bar island and an access to intake fire suppression water is located about 50 feet downstream. All the residents in the Poker Bar residential area use drilled wells for domestic water.

Water Treatment Facilities

There are no community facilities available for water treatment at Poker Bar or Biggers Road. Any treatment is associated with individual residents.

Wastewater Collection and Treatment

There are no community facilities available for wastewater treatment at within the Douglas City Plan Area. Septic tanks and drain fields generally provide adequate treatment at a local scale.

The ability of the land to accommodate on-site sewage disposal systems varies considerably throughout the Plan Area. Problem sites generally have one or more of the following constraints: high groundwater, steep slopes, shallow soils, or high clay content soils. Of continuing concern to the Trinity County Health Department is development within floodplain areas or on extensively mined areas. Previously created lots within floodplain areas are constrained by lack of soils (in mined areas), high groundwater, and insufficient area to allow for proper sanitary setbacks from watercourses and wells. Particular problem areas include portions of Poker Bar and the southerly end of Steel Bridge Road.

Due to the reliance on individual sewage disposal systems as well as the importance of protecting water quality, densities within the Plan Area must remain fairly low. The Trinity County Health Department has specifically indicated that portions of the Poker Bar Area and southerly end of Steel Bridge Road are severely restricted for future development due to high groundwater and poor soils.

Solid Waste Collection and Disposal

The County's single landfill is located in Weaverville, adjacent to the existing Lonnie Pool Airport. This landfill now operates as a transfer station. Solid waste is collected from transfer stations throughout the County and delivered to the Weaverville facility. From here, all material is currently transported by truck to the landfill located in Anderson, California.

Fire Protection

CDF has identified the Douglas City Plan Area as a high fire hazard area. The rural nature of this Plan Area and limited fire station locations results in relatively slow response times, particularly in winter.

Fire protection within or adjacent the Plan Area is provided by the DCCSD, CDF, and the Office of Emergency Services. The DCCSD is the primary fire protection agency for structural fires; it maintains a fire station in the Douglas City core community area with two engines and a quick response vehicle with a 200-gallon slip-on tank. CDF is the primary fire protection agency for wildland fires, and maintains a fire station at Fawn Lodge (east of the Plan Area) and a station in Weaverville.

The DCCSD has established a second fire station in the Poker Bar-Vitzhum Grade area that is supported by volunteers from the local response area. This station has a one engine and a service truck.

Schools

The Douglas City Plan Area has a student population of 202. Approximately 143 of these students attend Douglas City Elementary School and 59 attend Trinity High School in Weaverville.

3.17.2 Relevant Plans and Policies

Trinity County General Plan Goals and Objectives

The Trinity County General Plan contains goals and policies designed to guide the future physical development of the County, based on current conditions. The General Plan contains all the state-required elements, including community development and design, transportation, natural resources, health and safety, noise, housing, recreation, economic development, public facilities and services, and air quality. The following goals and policies, relative to public service and utility issues associated with the Project study area, were taken from the applicable elements of the General Plan (County 2001). This includes the Lewiston Community Plan (County 1986) and the Douglas City Plan (County 1987).

Lewiston Community Plan Goals and Objectives

This plan includes the area centered on the Trinity River from Lewiston Lake to slightly downstream of the confluence of Grass Valley Creek and the Trinity River. Project sites within the planning area include Salt Flat and Bucktail.

Goal: To guide development in such a manner that an acceptable balance is achieved between the costs for public facilities and services and revenues or improvements required of new developments.

- Encourage development within or adjacent to areas already served with public facilities or services.
- Discourage development which requires expensive facilities or long-range service costs unless an adequate funding source can be assured.

Douglas City Community Plan

This plan includes the area centered on the Trinity River from Grass Valley Creek to slightly downstream of Steiner Flat. Project sites within the planning area include Poker Bar and Biggers Road bridge sites.

Goal: To guide development in such a manner that an acceptable balance is achieved between the costs for public facilities and services and revenues or improvements required of new developments.

- Encourage development within or adjacent to areas already served with public facilities or services.
- Discourage development which requires expensive facilities or long-range service costs unless an adequate funding source can be assured.

Public Services and Facilities

Goal: Maintain as a priority, the existing level of public services and improvements within areas of the community already served.

- Coordinate road improvements and maintenance activities with the Douglas City Community Service District to ensure all season access to existing and future fire stations.

Project Consistency with the Trinity County General Plan and Community Plans

As described in Chapter 1, Introduction, the proposed Project would:

- Provide safe and reasonable year-round access to parcels of land served by the Salt Flat, Bucktail, Poker Bar and Biggers Road bridges across the Trinity River.
- Allow dam operators maximum flexibility to provide instream flow releases from Lewiston Dam adequate to meet the fishery and geomorphic flow needs for the mainstem Trinity River and to fulfill the Trinity River TMDL for sediment and restore the coldwater fishery beneficial use.

The following project objectives apply to the project's lead/responsible agencies for CEQA purposes:

- Minimize the threat to public safety and potential damage to property posed by the existing high likelihood of flooding
- Provide maximum flexibility for implementing a variety of potential Trinity River fishery flow alternatives, as well as other flow alternatives outside the ROD such as increasing dam releases during periods of high downstream tributary inflows
- Allow for high-efficiency sediment transport in the Trinity River to maximize the amount of sediment transported on a per acre-foot basis so that Trinity River can be removed from California's Clean Water Act Section 303(d) Impaired Waterbodies List, while minimizing the total amount of water necessary to transport sediment through the river system
- Provide maximum flexibility for operations of the TRD during periods of high runoff and flooding which could result in increased water in storage available for multiple beneficial uses (i.e., fisheries, recreation, water supply, water quality and power production)
- Provide alternative access on a short-term basis during project implementation
- Recovery of fish and wildlife resources that are listed as threatened and endangered

The following objectives apply to the projects responsible and trustee agencies, including the HVT, NCRWQCB, the SLC, the CDFG, and the SWRCB:

- Comply with the Water Code to ensure the highest reasonable quality of waters of the state and allocate those waters to achieve the optimum balance of beneficial uses
- Protect the public trust assets of the Trinity River watershed
- Protect, conserve, restore, and manage fish, wildlife, and native plant resources
- Comply with the Water Quality Control Plan for the Hoopa Valley Indian Reservation to preserve and enhance water quality on the Reservation, and to protect the beneficial uses of water.

These project objectives are consistent with the applicable general plan goals and policies summarized above.

3.17.3 Environmental Consequences/Impacts and Mitigation Measures

Methodology

The analysis addresses potential impacts from both the construction and long-term operation of the proposed Project on the following public services and facilities: water supply and distribution; wastewater collection and treatment; law enforcement; solid waste collection and disposal; fire protection; telephone service, electric service, and schools.

The analysis is based on the review of planning documents for the project area, telephone communication with various agencies, and field reconnaissance. The analysis also qualitatively addresses potential impacts to energy resources due to substantial or wasteful energy use for project construction.

Significance Criteria

A project would normally have a significant adverse impact on public services or utilities under CEQA if it would

- not comply with published, national, state, or local statutes, regulations, or standards relating to solid waste;
- interfere with emergency services;
- degrade the level of service of a public service or utility;
- require relocating infrastructure;
- result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for either fire protection, police protection, schools, parks, or other public services;
- require substantial improvements to the infrastructure or level of staffing of a public service or utility to maintain its existing level of service;
- require or result in the construction of new water treatment, wastewater treatment, or storm water drainage facilities, or the expansion of such existing facilities, the construction of which could cause significant environmental effects;
- be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs;
- disrupt utilities service to create a public health hazard or extended service disruption; or

- encourage activities that resulted in the use of large amounts of fuel or energy, or would use fuel or energy in a wasteful manner.

Impacts and Mitigation Measures

Table 3.17-1 summarizes potential impacts resulting from implementation of the proposed Project.

TABLE 3.17-1
SUMMARY OF PUBLIC SERVICES AND UTILITY IMPACTS FOR THE TRINITY RIVER BRIDGES PROJECT

Impact	Project Site	No-Action Alternative	Proposed Action	Alternative 1	Alternative 2
1. Implementation of the proposed Trinity River Bridges Project could potentially disrupt an existing domestic water supply during the construction phase.	Salt Flat	NI	S	S	S
	Bucktail	NI	NI	NI	N/A
	Poker Bar	NI	NI	NI	N/A
	Biggers Road	NI	NI	NI	N/A
2. Implementation of the proposed Trinity River Bridges Project could potentially disrupt an existing domestic sewer/septic system during the construction phase.	Salt Flat	NI	NI	NI	NI
	Bucktail	NI	NI	NI	N/A
	Poker Bar	NI	NI	NI	N/A
	Biggers Road	NI	NI	NI	N/A
3. Implementation of the proposed Trinity River Bridges Project could potentially disrupt existing electrical service during the construction phase.	Salt Flat	NI	NI	NI	NI
	Bucktail	NI	NI	NI	N/A
	Poker Bar	NI	NI	NI	N/A
	Biggers Road	NI	NI	NI	N/A
4. Implementation of the proposed Trinity River Bridges Project could potentially disrupt telephone service during the construction phase.	Salt Flat	NI	NI	NI	NI
	Bucktail	NI	NI	NI	N/A
	Poker Bar	NI	NI	NI	N/A
	Biggers Road	NI	NI	NI	N/A
5. Construction of the proposed Trinity River Bridges Project could result in the generation of increased solid waste.	Salt Flat	NI	LS	LS	LS
	Bucktail	NI	LS	LS	N/A
	Poker Bar	NI	LS	LS	N/A
	Biggers Road	NI	LS	LS	N/A
6. Implementation of the proposed Trinity River Bridges Project may result in decreased emergency response time during construction.	Salt Flat	NI	S	S	S
	Bucktail	NI	S	NI	N/A
	Poker Bar	NI	S	S	N/A
	Biggers Road	NI	S	S	N/A

TABLE 3.17-1
SUMMARY OF PUBLIC SERVICES AND UTILITY IMPACTS FOR THE TRINITY RIVER BRIDGES PROJECT

Impact	Project Site	No-Action Alternative	Proposed Action	Alternative 1	Alternative 2
7. Construction of the proposed Trinity River Bridges Project could potentially result in a disruption to school bus routes or student travel routes during the construction phase.	Salt Flat	NI	LS	LS	LS
	Bucktail	NI	LS	NI	N/A
	Poker Bar	NI	LS	LS	N/A
	Biggers Road	NI	LS	LS	N/A
8. Construction of the proposed Trinity River Bridges Project could result in a substantial use of nonrenewable energy resources.	Salt Flat	NI	LS	LS	LS
	Bucktail	NI	LS	LS	N/A
	Poker Bar	NI	LS	LS	N/A
	Biggers Road	NI	LS	LS	N/A

Notes:
LS = Less than Significant S = Significant NI = No Impact SU = Significant Unavoidable
N/A = Not Applicable

Salt Flat Bridge

Impact 3.17-1: Implementation of the proposed Trinity River Bridges Project could potentially disrupt an existing domestic water supply during the construction phase. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Implementation of the No-Action Alternative would not disrupt an existing domestic water supply because a new bridge would not be constructed at the Salt Flat site.

Proposed Action (Replacement Downstream, Private Ownership)

Construction and implementation of the Proposed Action could result in the disruption of a private well and water lines located along the right (north) edge of Salt Flat Road (Bonk), left (northeast) of the existing bridge, and a service well located downstream (south) of the right (western) abutment (Heinsohn). A portion of the service lines along Salt Flat Road may need to be relocated and the well located near the right abutment will be relocated downstream beyond the abutment footprint and construction limit. Relocation of these private facilities would result in a short-term disruption. Implementing mitigation measures from **Section 3.2** (Land Use) regarding well relocation (Mitigation Measures SF 1a – 1d) will reduce this impact to a less than significant level.

Alternative 1 (Replacement Upstream, Private Ownership)

Temporary disruptions of an existing water supply under Alternative 1 would be similar to the Proposed Action, with the exception being that the private well currently located downstream of the existing bridge (Heinsohn) would not need to be relocated. Under Alternative 1, the private well and associated service line along the north edge of Salt Flat Road (Bonk) may need to be relocated. Implementing mitigation measures from **Section 3.2** (Land Use) regarding well relocation (Mitigation Measures SF 1a – 1d) will reduce this impact to a less than significant level.

Alternative 2 (Replacement Upstream, Public Ownership)

Temporary disruptions of an existing water supply would be similar to the Proposed Action and Alternative 1. Under Alternative 2, the private well and associated service line along the north edge of Salt Flat Road (Bonk) may still need to be relocated. Implementing mitigation measures from **Section 3.2** (Land Use) regarding well relocation (Mitigation Measures SF 1a – 1d) will reduce this impact to a less than significant level.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A

Proposed Action; Alternative 1; Alternative 2

SF-1: The following mitigation measures from **Section 3.2** (Land Use) shall be fully implemented: Mitigation Measure SF-1a through SF-1d (Well Relocation).

Significance after Mitigation: *Less than Significant.*

Impact 3.17-2: Implementation of the proposed Trinity River Bridges Project could potentially disrupt an existing domestic sewer/septic system during the construction phase. ***No Impact for the No-Action Alternative, Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

No disruption of an existing domestic sewer/septic system would occur under the No-Action Alternative because the new bridge would not be constructed at the Salt Flat site.

Proposed Action (Replacement Downstream, Private Ownership) / Alternative 1 (Replacement Upstream, Private Ownership / Alternative 2 (Replacement Upstream, Public Ownership)

No domestic sewer/septic systems have been identified within the Salt Flat ESL. No impacts to an existing domestic sewer/septic system are anticipated to occur as a result of the Proposed Action, Alternative 1, or Alternative 2.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1; Alternative 2

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-3: Implementation of the proposed Trinity River Bridges Project could potentially disrupt existing electrical service during the construction phase. ***No Impact for the No-Action Alternative, Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

No construction-related disruption of existing electrical service would occur under the No-Action Alternative because the new bridge would not be constructed at the Salt Flat site.

Proposed Action (Replacement Downstream, Private Ownership) / Alternative 1 (Replacement Upstream, Private Ownership) / Alternative 2 (Replacement Upstream, Public Ownership)

No overhead or underground utilities have been identified within the Salt Flat ESL. No impacts to existing electrical service are anticipated to occur as a result of the Proposed Action, Alternative 1, or Alternative 2.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1; Alternative 2

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-4: Implementation of the proposed Trinity River Bridges Project could potentially disrupt telephone service during the construction phase. ***No Impact for the No-Action Alternative, Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

No construction-related disruption of telephone service would occur under the No-Action Alternative because the new bridge would not be constructed at the Salt Flat site.

Proposed Action (Replacement Downstream, Private Ownership) / Alternative 1 (Replacement Upstream, Private Ownership) / Alternative 2 (Replacement Upstream, Public Ownership)

No overhead or underground utilities have been identified within the Salt Flat ESL. Therefore, no impacts to existing telephone service are anticipated to occur as a result of the Proposed Action, Alternative 1, or Alternative 2.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1; Alternative 2

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-5: Construction of the proposed Trinity River Bridges Project could result in the generation of increased solid waste. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Increased quantities of solid waste would not be generated under the No-Action Alternative because the new bridge would not be constructed at the Salt Flat site.

Proposed Action (Replacement Downstream, Private Ownership)

Construction of the Proposed Action would result in the generation of solid waste. The project would involve the removal of some vegetation to allow for construction equipment access to the river channel; steel, concrete, and asphalt rubble from the old bridge structure that would be replaced during construction; and other construction-related waste (i.e., trash from workers, cans, buckets, etc.). Smaller-sized solid waste generated by project construction activities would likely be disposed of locally at the Weaverville waste facility. Waste collected at the Weaverville

facility is currently transported by truck to the landfill located in Anderson, California. The Anderson landfill currently has sufficient capacity and the necessary permits to accommodate construction waste that is non-hazardous. The contractor will be responsible for determining appropriate bridge disposal sites. Disposal of potentially hazardous waste is evaluated in **Section 3.15**, (Hazardous Materials).

Alternative 1 (Replacement Upstream, Private Ownership)

Construction of Alternative 1 would result in the generation of solid waste. The project would involve the removal of vegetation to allow for construction equipment access to the river channel; steel, concrete, and asphalt rubble from the old bridge structure that would be replaced during construction; and other construction-related waste (i.e., trash from workers, cans, buckets, etc.). The quantity of waste generated from implementation of Alternative 1 would be similar to the Proposed Action, with the exception that additional vegetation would be removed and require disposal under Alternative 1 (for construction of a new bridge and roadway approaches upstream of the existing bridge location).

Smaller-sized solid waste generated by project construction activities would likely be disposed of locally at the Weaverville waste facility. Waste collected at the Weaverville facility is currently transported by truck to the landfill located in Anderson, California. The Anderson landfill currently has sufficient capacity and the necessary permits to accommodate construction waste that is non-hazardous. Disposal of potentially hazardous waste is evaluated in **Section 3.15**, Hazardous Materials.

Alternative 2 (Replacement Upstream, Public Ownership)

Solid waste generated from construction of Alternative 2 would be similar to that generated under Alternative 1.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1; Alternative 2

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-6: Implementation of the proposed Trinity River Bridges Project could potentially result in decreased response time for police service, fire protection service, and emergency service during the construction phase. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Implementation of the No-Action Alternative would not decrease response time for police, fire protection, or emergency service because the new bridge would not be constructed at the Salt Flat site under this alternative.

Proposed Action (Replacement Downstream, Private Ownership)

Although project construction activities associated with the Proposed Action will be staged to maintain one lane of traffic along Salt Flat Road and across the existing bridge, there may be a need to temporarily close the road and/or bridge to accommodate construction access and delivery of materials to the site. Any potential road/bridge closures would be implemented during non-peak hours to avoid traffic circulation impacts; however, a closure even during

non-peak hours (i.e., 11:00 PM to 6:00 AM) could have the potential to significantly decrease response time for police service, fire protection, and other emergency services. This would be considered a significant impact.

Alternative 1 (Replacement Upstream, Private Ownership)

Impacts to emergency response time resulting from construction associated with Alternative 1 would be similar to the Proposed Action; with the exception that closing the existing Salt Flat Bridge in order to rotate it would not be necessary under this alternative.

Alternative 2 (Replacement Upstream, Public Ownership)

Impacts to emergency response time resulting from construction associated with Alternative 2 would be similar to Alternative 1.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A

Proposed Action; Alternative 1; Alternative 2

SF-6a: The BOR shall stipulate in the contract specifications for construction that the contractor must stage construction work and temporary closures in a manner that will allow for emergency service provider access.

SF-6b: The BOR shall stipulate in the contract specifications that the contractor must provide 72-hour notice to the local emergency providers (i.e., TCSD, CDF, LCSD, Trinity Life Support Ambulance, and STAR) prior to the start of temporary closures.

Significance after Mitigation: *Less than Significant.*

Impact 3.17-7: Construction of the proposed Trinity River Bridges Project could potentially result in a disruption to school bus routes or student travel routes during the construction phase. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

No construction-related disruption of an existing domestic water supply would occur under the No-Action Alternative because the new bridge would not be constructed at the Salt Flat site.

Proposed Action (Replacement Downstream, Private Ownership)

Although project construction activities associated with the Proposed Action will be staged to maintain one lane of traffic along Salt Flat Road and across the existing bridge, there may be a need to temporarily close the road and/or bridge to accommodate construction access and delivery of materials to the site. Due to weight restrictions on Salt Flat Bridge and private ownership of Salt Flat Road, students who live on the west side of the Trinity River must walk or be driven to the bus stop at the intersection of Goose Ranch Road and Salt Flat Road each morning. In the event that road/bridge closures would be required during the school year (mid-August through mid-June) these closures will

only occur during non-peak hours consistent with the requirements outlined in **Section 3.16** (Noise) and in coordination with the appropriate school district to avoid disruption of student access to bus service.

Alternative 1 (Replacement Upstream, Private Ownership)

Impacts to student travel routes resulting from construction associated with Alternative 1 would be similar to the Proposed Action; with the exception that closing the existing Salt Flat Bridge in order to rotate it would not be necessary under this alternative.

Alternative 2 (Replacement Upstream, Public Ownership)

Impacts to student travel routes resulting from construction associated with Alternative 2 would be similar to Alternative 1.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1; Alternative 2

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-8: Construction of the proposed Trinity River Bridges Project could result in a substantial use of nonrenewable energy resources. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

No construction-related use of nonrenewable energy resources would occur under the No-Action Alternative because under this alternative the new bridge would not be constructed at the Salt Flat site.

Proposed Action (Replacement Downstream, Private Ownership)

Construction energy expenditures associated with the Proposed Action would include both direct and indirect uses of energy. Combustion of the refined petroleum products needed to operate construction equipment would be a part of direct energy use. The energy consumed through mining and extraction of raw materials, manufacturing, and transportation to make the steel and all other materials used in project construction would be a part of the indirect energy use. Indirect energy use typically represents about three-quarters of total construction energy usage and direct energy use comprising the remaining quarter. Though construction energy would be consumed only during the construction phase, it would represent irreversible consumption of finite natural energy resources.

Construction would consume fuel and electricity, along with indirect energy for materials used in construction of the bridge structure and roadway approaches. Fuel would be consumed by both construction equipment and construction-worker vehicle trips. Electricity would be used by construction equipment, such as welding machines and power tools. Energy consumed by construction power equipment would be relatively minimal.

Construction energy consumption would be a single, short-term impact and would not be an ongoing drain on finite natural resources. Construction would consume energy primarily in the form of fuel and electricity and would not

have a significant effect on local or regional energy sources. Energy consumption by construction activities would not be a significant impact, and mitigation is not required.

Alternative 1 (Replacement Upstream, Private Ownership)

Use of non-renewable resources associated with construction of Alternative 1 would be similar to the Proposed Action.

Alternative 2 (Replacement Upstream, Public Ownership)

Use of non-renewable resources associated with construction of Alternative 2 would be similar to the Proposed Action and Alternative 1.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1; Alternative 2

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Bucktail Bridge

Impact 3.17-1: Implementation of the proposed Trinity River Bridges Project could potentially disrupt an existing domestic water supply during the construction phase. ***No Impact for the No-Action Alternative, Proposed Action and Alternative 1.***

No-Action Alternative

Implementation of the No-Action Alternative would not disrupt an existing domestic water supply because the west approach roadway and the existing culvert will not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert) / Alternative 1 (Raise Existing Levee)

No utilities have been identified within the Bucktail ESL. No impacts to an existing domestic water supply are anticipated to occur as a result of the Proposed Action or Alternative 1.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-2: Implementation of the proposed Trinity River Bridges Project could potentially disrupt an existing domestic sewer/septic system during the construction phase. ***No Impact for the No-Action Alternative, Proposed Action and Alternative 1.***

No-Action Alternative

No disruption of an existing domestic sewer/septic system would occur under the No-Action Alternative because the west approach roadway and the existing culvert will not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert) / Alternative 1 (Raise Existing Levee)

No domestic sewer/septic systems have been identified within the Bucktail ESL. No impacts to an existing domestic sewer/septic system are anticipated to occur as a result of the Proposed Action or Alternative 1.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-3: Implementation of the proposed Trinity River Bridges Project could potentially disrupt existing electrical service during the construction phase. ***No Impact for the No-Action Alternative, Proposed Action and Alternative 1.***

No-Action Alternative

No construction-related disruption of existing electrical service would occur under the No-Action Alternative because under this alternative the west approach roadway and the existing culvert will not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert) / Alternative 1 (Raise Existing Levee

No overhead or underground utilities have been identified within the Bucktail ESL. No impacts to existing electrical service are anticipated to occur as a result of the Proposed Action or Alternative 1

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-4: Implementation of the proposed Trinity River Bridges Project could potentially disrupt telephone service during the construction phase. ***No Impact for the No-Action Alternative, Proposed Action and Alternative 1.***

No-Action Alternative

No construction-related disruption of telephone service would occur under the No-Action Alternative because under this alternative the west approach roadway and the existing culvert will not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert) / Alternative 1

No overhead or underground utilities have been identified within the Bucktail ESL. Therefore, no impacts to existing telephone service are anticipated to occur as a result of the Proposed Action or Alternative 1.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-5: Construction of the proposed Trinity River Bridges Project could result in the generation of increased solid waste. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Increased quantities of solid waste would not be generated under the No-Action Alternative because under this alternative the west approach roadway and the existing culvert will not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

Construction of the Proposed Action would result in the generation of solid waste. The project would involve the removal of some vegetation to allow for construction equipment access to the existing culvert location and for construction of the temporary detour route; concrete and asphalt rubble from the old roadway and culvert that would be replaced during construction; and other construction-related waste (i.e., trash from workers, cans, buckets, etc.). Smaller-sized solid waste generated by project construction activities would likely be disposed of locally at the Weaverville waste facility. Waste collected at the Weaverville facility is currently transported by truck to the landfill located in Anderson, California. The Anderson landfill currently has sufficient capacity and the necessary permits to accommodate construction waste that is non-hazardous. The contractor will be responsible for determining appropriate bridge disposal sites. Disposal of potentially hazardous waste is evaluated in **Section 3.15**, (Hazardous Materials).

Alternative 1 (Raise Existing Levee)

Construction of Alternative 1 would result in the generation of solid waste. The project would involve the removal of vegetation to allow for construction equipment access to the river channel and other construction-related waste (i.e., trash from workers, cans, buckets, etc.). The quantity of waste generated from implementation of Alternative 1 would be much less than the Proposed Action because no roadway or culvert improvements will take place under Alternative 1.

Smaller-sized solid waste generated by project construction activities would likely be disposed of locally at the Weaverville waste facility. Waste collected at the Weaverville facility is currently transported by truck to the landfill located in Anderson, California. The Anderson landfill currently has sufficient capacity and the necessary permits to accommodate construction waste that is non-hazardous. The contractor will be responsible for determining appropriate bridge disposal sites. Disposal of potentially hazardous waste is evaluated in **Section 3.15**, (Hazardous Materials).

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-6: Implementation of the proposed Trinity River Bridges Project could potentially result in decreased response time for police service, fire protection service, and emergency service during the construction phase. ***No Impact for the No-Action Alternative and Alternative 1; Significant Impact for the Proposed Action.***

No-Action Alternative

Implementation of the No-Action Alternative would not decrease response time for police, fire protection, or emergency service because under this alternative the west approach roadway and the existing culvert will not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

Although project construction activities associated with the Proposed Action will be staged to maintain at least one lane of traffic on Browns Mountain Road, across the existing bridge, and across the temporary detour to be constructed upstream of the existing roadway, there may be a need to temporarily close the road, bridge, and/or detour to accommodate construction access and delivery of materials to the site. Any potential route closures would be implemented during non-peak hours to avoid traffic circulation impacts; however, a closure even during non-peak hours (i.e., 11:00 PM to 6:00 AM) could have the potential to significantly decrease response time for police service, fire protection, and other emergency services.

Alternative 1 (Raise Existing Levee)

Temporary closures of Browns Mountain Road are not anticipated under Alternative 1; therefore, no construction-related decrease in emergency vehicle response time is anticipated to result from implementation of this alternative.

Mitigation Measures

No-Action Alternative; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Proposed Action

BT-6a: The BOR shall stipulate in the contract specifications for construction that the contractor must stage construction work and temporary closures in a manner that will allow for emergency service provider access.

BT-6b: The BOR shall stipulate in the contract specifications that the contractor must provide 72-hour notice to the local emergency providers (i.e., TCSD, CDF, LCSD, Trinity Life Support Ambulance, and STAR) prior to the start of temporary closures.

Significance after Mitigation: *Less than Significant.*

Impact 3.17-7: Construction of the proposed Trinity River Bridges Project could potentially result in a disruption to school bus routes or student travel routes during the construction phase. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1***

No-Action Alternative

No construction-related disruption of an existing domestic water supply would occur under the No-Action Alternative because under this alternative the west approach roadway and the existing culvert will not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

Although project construction activities associated with the Proposed Action will be staged to maintain at least one lane of traffic on Browns Mountain Road, across the existing bridge, and across the temporary detour to be constructed upstream of the existing roadway, there may be a need to temporarily close the road, bridge, and/or detour to accommodate construction access and delivery of materials to the site. Browns Mountain Road and Bucktail Bridge are currently used to provide school bus service to the Bucktail subdivision. In the event that road/bridge closures would be required during the school year (mid-August through mid-June) these closures will only occur during non-peak hours consistent with the requirements outlined in **Section 3.16** (Noise) and in coordination with the appropriate school district to avoid disruption of student access to bus service.

Alternative 1 (Raise Existing Levee)

Temporary closures of Browns Mountain Road are not anticipated under Alternative 1; therefore, no construction-related disruption of school bus or student travel routes is anticipated to occur under Alternative 1.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-8: Construction of the proposed Trinity River Bridges Project could result in a substantial use of nonrenewable energy resources. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

No construction-related use of nonrenewable energy resources would occur under the No-Action Alternative because under this alternative the west approach roadway and the existing culvert will not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

Construction energy expenditures associated with the Proposed Action would include both direct and indirect uses of energy. Combustion of the refined petroleum products needed to operate construction equipment would be a part of direct energy use. The energy consumed through mining and extraction of raw materials, manufacturing, and transportation to make the steel and all other materials used in project construction would be a part of the indirect energy use. Indirect energy use typically represents about three-quarters of total construction energy usage and direct energy use comprising the remaining quarter. Though construction energy would be consumed only during the construction phase, it would represent irreversible consumption of finite natural energy resources.

Construction would consume fuel and electricity, along with indirect energy for materials used in replacement of the culvert and roadway approaches. Fuel would be consumed by both construction equipment and construction-worker vehicle trips. Electricity would be used by construction equipment, such as welding machines and power tools. Energy consumed by construction power equipment would be relatively minimal.

Construction energy consumption would be a single, short-term impact and would not be an ongoing drain on finite natural resources. Construction would consume energy primarily in the form of fuel and electricity and would not have a significant effect on local or regional energy sources. Energy consumption by construction activities would not be a significant impact, and mitigation is not required.

Alternative 1 (Raise Existing Levee)

Use of non-renewable resources associated with construction of Alternative 1 would be less than the Proposed Action because no roadway or culvert replacement will occur under this alternative.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Poker Bar Bridges

Impact 3.17-1: Implementation of the proposed Trinity River Bridges Project could potentially disrupt an existing domestic water supply during the construction phase. ***No Impact for the No-Action Alternative, Proposed Action, and Alternative 1.***

No-Action Alternative

Implementation of the No-Action Alternative would not disrupt an existing domestic water supply because new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures) / Alternative 1 (Replacement Downstream with Two Single-Span Structures)

A private water tap present about 50 feet upstream and an access to intake fire suppression water located about 50 feet downstream of the left (east) channel bridge on Poker Bar island will not be impacted by construction or implementation of the Proposed Action or Alternative 1. No other utilities are present within the Poker Bar ESL.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-2: Implementation of the proposed Trinity River Bridges Project could potentially disrupt an existing domestic sewer/septic system during the construction phase. ***No Impact for the No-Action Alternative, Proposed Action, and Alternative 1.***

No-Action Alternative

No disruption of an existing domestic sewer/septic system would occur under the No-Action Alternative because new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures) / Alternative 1 (Replacement Downstream with Two Single-Span Structures)

No domestic sewer/septic systems have been identified within the Poker Bar ESL. No impacts to an existing domestic sewer/septic system are anticipated to occur as a result of the Proposed Action or Alternative 1.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-3: Implementation of the proposed Trinity River Bridges Project could potentially disrupt existing electrical service during the construction phase. ***No Impact for the No-Action Alternative, Proposed Action, and Alternative 1.***

No-Action Alternative

No construction-related disruption of existing electrical service would occur under the No-Action Alternative because new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures) / Alternative 1 (Replacement Downstream with Two Single-Span Structures)

No overhead or underground utilities have been identified within the Poker Bar ESL. No impacts to existing electrical service are anticipated to occur as a result of the Proposed Action or Alternative 1.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-4: Implementation of the proposed Trinity River Bridges Project could potentially disrupt telephone service during the construction phase. ***No Impact for the No-Action Alternative, Proposed Action, and Alternative 1.***

No-Action Alternative

No construction-related disruption of telephone service would occur under the No-Action Alternative because new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures) / Alternative 1 (Replacement Downstream with Two Single-Span Structures)

No overhead or underground utilities have been identified within the Poker Bar ESL. Therefore, no impacts to existing telephone service are anticipated to occur as a result of the Proposed Action or Alternative 1.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-5: Construction of the proposed Trinity River Bridges Project could result in the generation of increased solid waste. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Increased quantities of solid waste would not be generated under the No-Action Alternative because new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

Construction of the Proposed Action would result in the generation of solid waste. The project would involve the removal of some vegetation to allow for construction equipment access to the river channel; steel, concrete, and asphalt rubble from the old bridge structure and roadway approaches that would be replaced during construction; and other construction-related waste (i.e., trash from workers, cans, buckets, etc.). Smaller-sized solid waste generated by project construction activities would likely be disposed of locally at the Weaverville waste facility. Waste collected at the Weaverville facility is currently transported by truck to the landfill located in Anderson, California. The Anderson landfill currently has sufficient capacity and the necessary permits to accommodate construction waste that is non-hazardous. The contractor will be responsible for determining appropriate bridge disposal sites. Disposal of potentially hazardous waste is evaluated in **Section 3.15**, (Hazardous Materials).

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Generation of solid waste associated with Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-6: Implementation of the proposed Trinity River Bridges Project could potentially result in decreased response time for police service, fire protection service, and emergency service during the construction phase. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Implementation of the No-Action Alternative would not decrease response time for police, fire protection, or emergency service because new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

Although project construction activities associated with the Proposed Action will be staged to maintain one lane of traffic along Poker Bar Road, Bridge Road, and the existing bridges, there may be a need to temporarily close the roads and/or bridges to accommodate construction access and delivery of materials to the site. Any potential road/bridge closures would be implemented during non-peak hours to avoid traffic circulation impacts; however, a closure even during non-peak hours (i.e., 11:00 PM to 6:00 AM) could have the potential to significantly decrease response time for police service, fire protection, and other emergency services.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Impacts to emergency response time resulting from construction associated with Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A

Proposed Action; Alternative 1

PB-6a: The BOR shall stipulate in the contract specifications for construction that the contractor must stage construction work and temporary closures in a manner that will allow for emergency service provider access.

PB-6b: The BOR shall stipulate in the contract specifications that the contractor must provide 72-hour notice to the local emergency providers (i.e., TCSD, CDF, LCSD, Trinity Life Support Ambulance, and STAR) prior to the start of temporary closures.

Significance after Mitigation: *Less than Significant.*

Impact 3.17-7: Construction of the proposed Trinity River Bridges Project could potentially result in a disruption to school bus routes or student travel routes during the construction phase. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1***

No-Action Alternative

No construction-related disruption of an existing domestic water supply would occur under the No-Action Alternative because new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

Although project construction activities associated with the Proposed Action will be staged to maintain one lane of traffic along Poker Bar Road, Bridge Road, and the existing bridges, there may be a need to temporarily close the roads and/or bridges to accommodate construction access and delivery of materials to the site. School bus access to the Poker Bar neighborhood is limited due to weight restrictions on the Poker Bar Bridges. Generally, students who live on the west side of the Trinity River must walk or be transported to the bus stop at the intersection of Bridge Road and Poker Bar Road, beside the fire station at the top of the hill. In the event that road/bridge closures would be required during the school year (mid-August through mid-June) these closures will only occur during non-peak hours consistent with the requirements outlined in **Section 3.16** (Noise) and in coordination with the appropriate school district to avoid disruption of student access to bus service.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Impacts to student travel routes resulting from construction associated with Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-8: Construction of the proposed Trinity River Bridges Project could result in a substantial use of nonrenewable energy resources. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

No construction-related use of nonrenewable energy resources would occur under the No-Action Alternative because new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

Construction energy expenditures associated with the Proposed Action would include both direct and indirect uses of energy. Combustion of the refined petroleum products needed to operate construction equipment would be a part of direct energy use. The energy consumed through mining and extraction of raw materials, manufacturing, and transportation to make the steel and all other materials used in project construction would be a part of the indirect energy use. Indirect energy use typically represents about three-quarters of total construction energy usage and direct energy use comprising the remaining quarter. Though construction energy would be consumed only during the construction phase, it would represent irreversible consumption of finite natural energy resources.

Construction would consume fuel and electricity, along with indirect energy for materials used in construction of the bridge structure and roadway approaches. Fuel would be consumed by both construction equipment and construction-worker vehicle trips. Electricity would be used by construction equipment, such as welding machines and power tools. Energy consumed by construction power equipment would be relatively minimal.

Construction energy consumption would be a single, short-term impact and would not be an ongoing drain on finite natural resources. Construction would consume energy primarily in the form of fuel and electricity and would not have a significant effect on local or regional energy sources. Energy consumption by construction activities would not be a significant impact, and mitigation is not required.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Use of non-renewable resources associated with construction of Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Biggers Road Bridge

Impact 3.17-1: Implementation of the proposed Trinity River Bridges Project could potentially disrupt an existing domestic water supply during the construction phase. ***No Impact for the No-Action Alternative, Proposed Action, and Alternative 1.***

No-Action Alternative

Implementation of the No-Action Alternative would not disrupt an existing domestic water supply because a new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream) / Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

A shallow domestic water well and pump located about 20 feet upstream of the existing bridge will not be impacted by construction or implementation of the Proposed Action or Alternative 1. No other utilities occur within the Biggers Road ESL.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-2: Implementation of the proposed Trinity River Bridges Project could potentially disrupt an existing domestic sewer/septic system during the construction phase. ***No Impact for the No-Action Alternative, Proposed Action and Alternative 1.***

No-Action Alternative

No disruption of an existing domestic sewer/septic system would occur under the No-Action Alternative because a new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream) / Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

No domestic sewer/septic systems have been identified within the Biggers Road ESL. No impacts to an existing domestic sewer/septic system are anticipated to occur as a result of the Proposed Action or Alternative 1.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-3: Implementation of the proposed Trinity River Bridges Project could potentially disrupt existing electrical service during the construction phase. ***No Impact for the No-Action Alternative, Proposed Action, and Alternative 1.***

No-Action Alternative

No construction-related disruption of existing electrical service would occur under the No-Action Alternative because a new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream) / Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

No overhead or underground electric utilities have been identified within the Biggers Road ESL. No impacts to existing electrical service are anticipated to occur as a result of the Proposed Action or Alternative 1.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-4: Implementation of the proposed Trinity River Bridges Project could potentially disrupt telephone service during the construction phase. ***No Impact for the No-Action Alternative, Proposed Action and Alternative 1.***

No-Action Alternative

No construction-related disruption of telephone service would occur under the No-Action Alternative because a new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream) / Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

No overhead or underground utilities have been identified within the Biggers Road ESL. Therefore, no impacts to existing telephone service are anticipated to occur as a result of the Proposed Action or Alternative 1.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-5: Construction of the proposed Trinity River Bridges Project could result in the generation of increased solid waste. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Increased quantities of solid waste would not be generated under the No-Action Alternative because a new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream)

Construction of the Proposed Action would result in the generation of solid waste. The project would involve the removal of some vegetation to allow for construction equipment access to the river channel; steel, concrete, and asphalt rubble from the old bridge structure that would be replaced during construction; and other construction-related waste (i.e., trash from workers, cans, buckets, etc.). Smaller-sized solid waste generated by project construction activities would likely be disposed of locally at the Weaverville waste facility. Waste collected at the Weaverville facility is currently transported by truck to the landfill located in Anderson, California. The Anderson landfill currently has sufficient capacity and the necessary permits to accommodate construction waste that is non-hazardous. The contractor will be responsible for determining appropriate bridge disposal sites. Disposal of potentially hazardous waste is evaluated in **Section 3.15**, (Hazardous Materials).

Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

Construction of Alternative 1 would result in the generation of solid waste. The project would involve the removal of vegetation to allow for construction equipment access to the river channel and for retaining wall construction; steel, concrete, and asphalt rubble from the old bridge structure and roadway approaches that would be replaced during construction; and other construction-related waste (i.e., trash from workers, cans, buckets, etc.). The quantity of waste generated from implementation of Alternative 1 would be similar to the Proposed Action, with the exception that additional vegetation would be removed and require disposal under Alternative 1 (for construction of a retaining wall adjacent to the Trinity River).

Smaller-sized solid waste generated by project construction activities would likely be disposed of locally at the Weaverville waste facility. Waste collected at the Weaverville facility is currently transported by truck to the landfill located in Anderson, California. The Anderson landfill currently has sufficient capacity and the necessary permits to accommodate construction waste that is non-hazardous. The contractor will be responsible for determining appropriate bridge disposal sites. Disposal of potentially hazardous waste is evaluated in **Section 3.15**, (Hazardous Materials).

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-6: Implementation of the proposed Trinity River Bridges Project could potentially result in decreased response time for police service, fire protection service, and emergency service during the construction phase. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Implementation of the No-Action Alternative would not decrease response time for police, fire protection, or emergency service because under this alternative a new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream)

Although project construction activities associated with the Proposed Action will be staged to maintain one lane of traffic along Steel Bridge Road and across the existing bridge, there may be a need to temporarily close the road and/or bridge to accommodate construction access and delivery of materials to the site. Any potential road/bridge closures would be implemented during non-peak hours to avoid traffic circulation impacts; however, a closure even during non-peak hours (i.e., 11:00 PM to 6:00 AM) could have the potential to significantly decrease response time for police service, fire protection, and other emergency services.

Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

Under Alternative 1, Steel Bridge Road will require intermittent daily closures for approximately four hours per day between the hours of 9 AM and 3 PM (assumed periods of low traffic volumes) for approximately two weeks during construction of the retaining wall and raising Steel Bridge Road. Any potential road/bridge closures would be implemented during non-peak hours to avoid traffic circulation impacts; however, a closure even during non-peak hours (i.e., 11:00 PM to 6:00 AM) could have the potential to significantly decrease response time for police service, fire protection, and other emergency services. This would be considered a significant impact

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance after Mitigation: N/A

Proposed Action; Alternative 1

BR-6a: The BOR shall stipulate in the contract specifications for construction that the contractor must stage construction work and temporary closures in a manner that will allow for emergency service provider access.

BR-6b: The BOR shall stipulate in the contract specifications that the contractor must provide 72-hour notice to the local emergency providers (i.e., TCSD, CDF, LCSD, Trinity Life Support Ambulance, and STAR) prior to the start of temporary closures.

Significance after Mitigation: *Less than Significant.*

Impact 3.17-7: Construction of the proposed Trinity River Bridges Project could potentially result in a disruption to school bus routes or student travel routes during the construction phase. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1***

No-Action Alternative

No construction-related disruption of an existing domestic water supply would occur under the No-Action Alternative because a new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream)

Although project construction activities associated with the Proposed Action will be staged to maintain one lane of traffic along Steel Bridge Road and across the existing bridge, there may be a need to temporarily close the road and/or bridge to accommodate construction access and delivery of materials to the site. No school-aged children currently live in the Biggers Road subdivision on the west side of the Trinity River. However, school-aged children do live north of the construction site along Steel Bridge Road. In the event that road/bridge closures would be required during the school year (mid-August through mid-June) these closures will only occur during non-peak hours consistent with the requirements outlined in **Section 3.16** (Noise) and in coordination with the appropriate school district to avoid disruption of student access to bus service.

Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

Under Alternative 1, Steel Bridge Road will require intermittent daily closures for approximately 4 hours per day between the hours of 9 AM and 3 PM (assumed periods of low traffic volumes) for approximately two weeks during construction of the retaining wall and raising Steel Bridge Road. No school-aged children currently live in the Biggers Road subdivision on the west side of the Trinity River. However, school-aged children do live north of the construction site along Steel Bridge Road. In the event that road/bridge closures would be required during the school year (mid-August through mid-June) these closures will only occur during non-peak hours consistent with the requirements outlined in **Section 3.16** (Noise) and in coordination with the appropriate school district to avoid disruption of student access to bus service.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

Impact 3.17-8: Construction of the proposed Trinity River Bridges Project could result in a substantial use of nonrenewable energy resources. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

No construction-related use of nonrenewable energy resources would occur under the No-Action Alternative because under this alternative a new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream)

Construction energy expenditures associated with the Proposed Action would include both direct and indirect uses of energy. Combustion of the refined petroleum products needed to operate construction equipment would be a part of

direct energy use. The energy consumed through mining and extraction of raw materials, manufacturing, and transportation to make the steel and all other materials used in project construction would be a part of the indirect energy use. Indirect energy use typically represents about three-quarters of total construction energy usage and direct energy use comprising the remaining quarter. Though construction energy would be consumed only during the construction phase, it would represent irreversible consumption of finite natural energy resources.

Construction would consume fuel and electricity, along with indirect energy for materials used in construction of the bridge structure and roadway approaches. Fuel would be consumed by both construction equipment and construction-worker vehicle trips. Electricity would be used by construction equipment, such as welding machines and power tools. Energy consumed by construction power equipment would be relatively minimal.

Construction energy consumption would be a single, short-term impact and would not be an ongoing drain on finite natural resources. Construction would consume energy primarily in the form of fuel and electricity and would not have a significant effect on local or regional energy sources. Energy consumption by construction activities would not be a significant impact, and mitigation is not required.

Alternative 1 (Replacement Upstream, Private Ownership)

Use of non-renewable resources associated with construction of Alternative 1 would likely be greater than the Proposed Action due to the additional roadway improvements and construction of a retaining wall adjacent to Steel Bridge Road and the Trinity River.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance after Mitigation: N/A

SECTION 3.18

Transportation/Traffic Circulation

3.18 Transportation / Traffic Circulation

This section addresses transportation and traffic issues related to construction and operation of the proposed Project. The following evaluation is based on review of local transportation plans and policies, as well as a field reconnaissance to document current local roadway conditions.

3.18.1 Affected Environment/Environmental Setting

Regional Roadway Network

The USFS Scenic Byways program was developed to provide alternative uses of national forest lands while meeting the public demands for scenic driving tours on safe, well-maintained roads within or near the boundaries of national forests. Trinity County currently has two Scenic Byways, the Trinity Scenic Byway (Highway 299) and the Siskiyou-Trinity Scenic Byway along State Routes 3 and 36. State Highway 299 was designated the Trinity Scenic Byway in October 1991. It enters Trinity County from the east over Buckhorn Summit, descending toward the Trinity River at Douglas City. Following Weaver Creek to Weaverville and then climbing Oregon Mountain, it rejoins the river at Junction City and follows the Trinity River Gorge into Humboldt County. State Highway 3, historically called the Trinity Heritage Scenic Byway, has recently been renamed the Siskiyou-Trinity Scenic Byway. It travels south from Montague in Siskiyou County through the Scott River Valley and enters Trinity County over the Scott Mountain Summit, fifty-five miles north of Weaverville. It travels through the Trinity Alps to Trinity Lake before continuing on to Weaverville, then south through Hayfork to the end of the highway at its junction with State Highway 36. This scenic byway continues along State Highway 36 through Forest Glen before continuing into Humboldt County (CED 2001).

Lewiston is the third largest community in Trinity County and is unique in the respect that no state highway passes through it. The Lewiston Plan Area includes the area centered on the Trinity River from Lewiston Lake to slightly downstream of the confluence of Grass Valley Creek and the Trinity River. Primary access in and out of the Lewiston community is via three main roadways: Trinity Dam Blvd., Lewiston Road, and Rush Creek Road (**Figure 3.18-1**). Each of these roadways eventually connects to either Highway 299 or Highway 3. Project sites within the Lewiston Plan Area include Salt Flat and Bucktail.

The Douglas City Plan Area includes the area centered on the Trinity River from Grass Valley Creek to slightly downstream of Steiner Flat. Primary access in and out of the Douglas City community is by Highways 3 and 299. The major County roads that serve the area are Poker Bar Road, Old Lewiston Road, Steel Bridge Road, Steiner Flat Road, and B-Bar-K Road (**Figure 3.18-1**). Project sites within the Douglas City Plan Area include Poker Bar and Biggers Road.

Local Roadway Network

TABLE 3.18-1
ROADWAY CHARACTERISTICS FOR ROADS IN THE PROJECT VICINITY

Road Name	Ownership	Roadway Class	No. of Lanes	Surface Type	Curb Shoulder	Pedestrian Walkway	Transit Lanes	Cross Streets
Highway 299	State of California	Highway/ Scenic Byway	2-3	Paved	Yes	No	No	Steel Bridge Road Poker Bar Road Lewiston Road
Steel Bridge Road	Trinity County	Local/ Residential	1-2	Paved	No	No	No	Biggers Road
Biggers Road	Private	N/A	1	Gravel / Native	No	No	No	N/A
Poker Bar Road	Trinity County	Local/ Residential	1-2	Paved	No	No	No	Old Highway Road Bridge Road
Bridge Road	Private	N/A	1	Paved	No	No	No	Red Lane Quad P Road River Road
Lewiston Road	Trinity County	Major collector	2	Paved	No	No	No	N/A
Browns Mountain Road	Trinity County	Local/ Residential	1-2	Paved	No	No	No	Salmon Road
Goose Ranch Road	Trinity County	Local/ Residential	1	Paved	No	No	No	N/A
Salt Flat Road	Private	N/A	1	Gravel	No	No	No	N/A

Salt Flat

Access to the Salt Flat Bridge site from Highway 299 is via Lewiston Road, to Goose Ranch Road, a narrow paved road, then to Salt Flat Road, a one-lane gravel road. Goose Ranch Road has an ADT count of 242 (2001 data) at its intersection with Lewiston Road (J. Holthaus, County Transportation Department, personal communication, 2002). The transportation subcommittee of the Advisory Committee identified the need for a second point of access to Salt Flat for emergency purposes as part of the Lewiston Community Plan (1986). To date, this action has not been implemented.

Designated Truck Routes

There are no designated truck routes served by this bridge.

Public Health

No public health programs (i.e., meals on wheels) or private meals programs for seniors currently serve residents in the Salt Flat community (E. Osvold-Doppelhauer and S. MacKenzie, personal communication, 2002).

N

0 2,000 4,000

Feet

Salt Flat

Salt Flat Rd

Bucktail

Steelhead Cr

Salmon Dr

Jobe Wy

Browns Mtn Rd

Old Lewiston Rd

Goose Ranch Rd

Rush Creek Rd

Deadwood Rd

Lewiston Turnpike

Lewiston

Old Lewiston Rd

Poker Bar

Red Lane

Bridge Rd

Poker Bar Rd

Old Poker Bar Rd

Old Highway

Old Lewiston Rd

Trinity Dam Blvd

Hwy 299

Biggers Rd

Steel Bridge Rd

Biggers Road

Hwy 299

Source: NSR, Inc.; USGS; Trinity County 03-31-03 tkoehler

F:\Projects\10006 - Environmental Survey at Four Bridge Replacement Sites\GIS\10006_Local_Roadways.mxb

North State Resources, Inc.

Trinity River Bridges Project

Figure 3.18-1
Local Roadways

Bikeways / Pedestrian Circulation

Though it lacks a pedestrian walkway, Salt Flat Bridge is currently used by pedestrian traffic from the residential area to Goose Ranch Road. Pedestrians include students that walk to the bus stop at the intersection of Salt Flat and Goose Ranch Road. The Trinity County Regional Transportation Plan (2001) identifies bicycle and pedestrian needs under Regional Transportation Needs and Issues as needing to be upgraded and expanded to provide a safe environment for non-motorized modes of transportation and to assist in attracting visitors. No proposed or existing bike paths are delineated within the Project areas on the Lewiston and Douglas City Bikeways Map in the Regional Transportation Plan.

Bucktail

Access to the Bucktail Bridge site is via Highway 299 to Lewiston Road (two-lane, paved), then to Browns Mountain Road (two-lane, paved). Portions of Salmon Road occur within the Project ESL. Salmon Road is a one-lane paved road that intersects Browns Mountain Road in the western portion of the Project area. After intersecting with Salmon Road and exiting the Project ESL, Browns Mountain Road becomes a one-lane paved road. Other roads in the Project vicinity include Steelhead Circle, a paved, one-lane road west of the Project area. A dirt road leads from Browns Mountain Road into the BLM public use and Trinity River access area located in the eastern portion of the Project area. A private gravel driveway intersects with this dirt road and Browns Mountain Road and exits the Project ESL to the east. At its intersection with Highway 299, Lewiston Road has an ADT of 656 (2001 data). At its intersection with Lewiston Road, Browns Mountain Road has an ADT of 249 (2001 data). ADT at the Bucktail Bridge is 170 vehicles per day (1998 data) (J. Holthaus, County Transportation Department, personal communication, 2002).

The Bucktail Hole fishing access is immediately downstream of the Bucktail Bridge. Parking occurs along the existing shoulder, on either side of the bridge, in the residential area and on BLM lands upstream of the bridge. Although no designated parking is provided, during high-use periods, parking is limited and occasional trespass issues arise on private lands within the Bucktail subdivision.

Designated Truck Routes

There are no designated truck routes served by this bridge.

Public Health

No public health programs (i.e., meals on wheels) or private meals programs for seniors currently serve residents in the Bucktail community (E. Osvold-Doppelhauer and S. MacKenzie, personal communication, 2002).

Bikeways / Pedestrian Circulation

Bucktail Bridge provides pedestrian access for residents and visitors, particularly with regards to the angling opportunities provided by Bucktail Hole. The Trinity County Regional Transportation Plan (2001) identifies bicycle and pedestrian needs under Regional Transportation Needs and Issues as needing to be upgraded and expanded to provide a safe environment for non-motorized modes of transportation and to assist in attracting visitors. No proposed or existing bike paths are delineated within the bridges Project areas on the Lewiston and Douglas City Bikeways Map in the Regional Transportation Plan.

Poker Bar

Access to the Poker Bar Bridge site is via Highway 299 to Poker Bar Road, a two-lane paved road that becomes a one-lane paved road at the intersection of Old Highway Road (approximately 1 mile south of the Project site), to Bridge Road, a one-lane paved road. Old Highway Road is a one-lane paved road. Poker Bar Road is the single access roadway to the Poker Bar area, an isolated river community. At its intersection with Highway 299, Poker Bar Road has an ADT of 212 (2001 data) (J. Holthaus, County Transportation Department, personal communication, 2002).

Other roads in the Project area include Red Lane, Quad P Road, and River Road. Red Lane is a one-lane paved road that proceeds east from its intersection with Bridge Road. Quad P Road and River Road are one-lane gravel roads that proceed west from their intersection with Bridge Road. Most of the roads in the Poker Bar community are maintained by the East Side Poker Bar Association. The 1986 Community Plan identified the following improvements on Poker Bar Road: improving the road to 20 feet of pavement, installing shoulders, and improving drainage. To date, this action has not been implemented (J. Holthaus, pers. comm. 2002).

Designated Truck Routes

There are no designated truck or delivery routes served by the existing bridge. No public health programs (i.e., meals on wheels) or private meals programs for seniors currently serve residents in the Poker Bar community (E. Osvold-Doppelhauer and S. MacKenzie, personal communication, 2002).

Bikeways / Pedestrian Circulation

The Trinity County Regional Transportation Plan (2001) identifies bicycle and pedestrian needs under Regional Transportation Needs and Issues as needing to be upgraded and expanded to provide a safe environment for non-motorized modes of transportation and to assist in attracting visitors. No proposed or existing bike paths are delineated within the bridges Project areas on the Lewiston and Douglas City Bikeways Map in the Regional Transportation Plan.

Biggers Road

Access to the Biggers Road Bridge site is via Highway 299 (a paved, 2-3 lane highway) to Steel Bridge Road (a paved, two-lane road that becomes a one-lane paved road 0.3 miles past the Bridge site), then to Biggers Road. Biggers Road is gravel-surfaced at the Biggers Road Bridge entrance and becomes a one-lane dirt road on the west side of the bridge. At its intersection with Highway 299, Steel Bridge Road has an ADT of 245 (2001 data) (J. Holthaus, County Transportation Department, personal communication, 2002).

An intersection turn study was completed for the Highway 299/Steel Bridge Road intersection in 2001 (J. Holthaus, County Transportation Department, personal communication, 2002). Traffic was tallied at one-hour intervals, and the direction of incoming and outgoing traffic was recorded (i.e., coming from the east or west, or exiting to the east or west). Of all incoming traffic, 59 percent entered from the west. Of all outgoing traffic, 66 percent exited to the west.

Designated Truck Routes

There are no designated truck routes served by this bridge.

Public Health

No public health programs (i.e., meals on wheels) or private meals programs for seniors currently serve residents in the Steel Bridge Road community (E. Osvold-Doppelhauer and S. MacKenzie, personal communication, 2002).

Bikeways / Pedestrian Circulation

The Trinity County Regional Transportation Plan (2001) identifies bicycle and pedestrian needs under Regional Transportation Needs and Issues as needing to be upgraded and expanded to provide a safe environment for non-motorized modes of transportation and to assist in attracting visitors. No proposed or existing bike paths are delineated within the bridges Project areas on the Lewiston and Douglas City Bikeways Map in the Regional Transportation Plan.

Duration of Construction

The estimated construction time for each of the four Project sites (Salt Flat, Bucktail, Poker Bar, Biggers Road) is as follows. Construction is assumed to occur within an 8-hour workday. The exception would be allowance of 15-hour workdays at Salt Flat and Biggers Road from commencement of construction in the fall of 2003 through winter 2004 to minimize the total number of workdays and impacts in the active river channel.

TABLE 3.18-2
ESTIMATED CONSTRUCTION TIME FOR FOUR BRIDGE SITES

Project Location	Year 1 Construction Days	Year 2 Construction Days
Salt Flat	60	165
Bucktail	90	--
Poker Bar	195	60
Biggers Road	60	165

3.18.2 REGULATORY SETTING

Trinity County General Plan Goals and Objectives

The Trinity County General Plan contains goals and policies designed to guide the future physical development of the county, based on current conditions. The General Plan contains all the state-required elements, including community development and design, transportation, natural resources, health and safety, noise, housing, recreation, economic development, public facilities and services, and air quality. The following goals and policies, relative to transportation/traffic issues associated with the Project study area, were taken from the applicable elements of the General Plan (County 2001). This includes the Lewiston Community Plan (County 1986) and the Douglas City Plan (County 1987).

Circulation Element

The Circulation Element contains the following goal associated with non-motorized transportation.

Goal: To increase bicycle and pedestrian travel by developing a safe and convenient system of bicycle routes, trails, storage facilities and pedestrian walkways, connecting all of Trinity County's major activity centers.

Lewiston Community Plan Goals and Objectives

This plan includes the area centered on the Trinity River from Lewiston Lake to slightly downstream of the confluence of Grass Valley Creek and the Trinity River. Project sites within the planning area include Salt Flat and Bucktail.

Transportation

Goal: To improve the safety characteristics of identified roadways based upon average daily traffic and public safety requirements.

- Develop a second point of access to Salt Flat for emergency purposes.

Douglas City Community Plan

This plan includes the area centered on the Trinity River from Grass Valley Creek to slightly downstream of Steiner Flat. Project sites within the planning are include Poker Bar and Biggers Road bridge sites.

Transportation

Goal: To provide a roadway system which effectively, efficiently and safely services transportation.

- Improve Poker Bar road to 20 feet of pavement, install shoulders and improve drainage.

Goal: To coordinate the transportation and circulation system with planned uses.

- Develop roadway systems, which are compatible with the areas they serve.
- Coordination of public agency development of river access points and trails with their circulation systems.

Public Services and Facilities

Goal: Maintain as a priority, the existing level of public services and improvements within areas of the community already served.

- Coordinate road improvements and maintenance activities with the DCCSD to ensure all season access to existing and future fire stations.

Project Consistency with the Trinity County General Plan

As described in **Chapter 1**, Introduction, the proposed Project would:

- Provide safe and reasonable year-round access to parcels of land served by the Salt Flat, Bucktail, Poker Bar and Biggers Road bridges across the Trinity River.
- Allow dam operators maximum flexibility to provide instream flow releases from Lewiston Dam adequate to meet the fishery and geomorphic flow needs for the mainstem Trinity River and to fulfill the Trinity River TMDL for sediment and restore the coldwater fishery beneficial use.

The following Project objectives apply to the Project's lead/responsible agencies for CEQA purposes:

- Minimize the threat to public safety and potential damage to property posed by the existing high likelihood of flooding

- Provide maximum flexibility for implementing a variety of potential Trinity River fishery flow alternatives, as well as other flow alternatives outside the ROD such as increasing dam releases during periods of high downstream tributary inflows
- Allow for high-efficiency sediment transport in the Trinity River to maximize the amount of sediment transported on a per acre-foot basis so that Trinity River can be removed from California's Clean Water Act Section 303(d) Impaired Waterbodies List, while minimizing the total amount of water necessary to transport sediment through the river system
- Provide maximum flexibility for operations of the TRD during periods of high runoff and flooding which could result in increased water in storage available for multiple beneficial uses (i.e., fisheries, recreation, water supply, water quality and power production)
- Provide alternative access on a short-term basis during Project implementation
- Recovery of fish and wildlife resources that are listed as threatened and endangered

The following objectives apply to the Projects responsible and trustee agencies, including the HVT, NCRWQCB, the SLC, the CDFG, and the SWRCB:

- Comply with the Water Code to ensure the highest reasonable quality of waters of the state and allocate those waters to achieve the optimum balance of beneficial uses
- Protect the public trust assets of the Trinity River watershed
- Protect, conserve, restore, and manage fish, wildlife, and native plant resources
- Comply with the Water Quality Control Plan for the Hoopa Valley Indian Reservation to preserve and enhance water quality on the Reservation, and to protect the beneficial uses of water.

These Project objectives are consistent with the applicable general plan goals and policies summarized above.

3.18.3 Environmental Consequences/Impacts and Mitigation Measures

Methodology

A qualitative assessment of traffic impacts was based on several components including the construction procedures and equipment that will be utilized, local transportation policies, site review of existing conditions, and the level of traffic on the key roadways.

Significance Criteria

Significance criteria were developed based upon Appendix G of the *CEQA Guidelines*, as well as Project-specific issues identified during the scoping process (i.e., access during construction). For the proposed Project, significant construction-related impacts would result if the proposed Project would

- cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)
- exceed, either individually or cumulatively, a level of service standard established by the county congestion/management agency for designated roads or highways;

- disrupt existing traffic operations, including vehicular and bicycle traffic;
- significantly degrade the existing conditions of local, private roads;
- obstruct access to adjacent land uses, including emergency access;
- affect the operation of the local transit system;
- pose a safety hazard to motorists, bicyclists, or pedestrians;
- cause substantial damage or wear of public and private roadways; and
- reduce available parking capacity.

Impacts and Mitigation Measures

Table 3.18-3 summarizes the potential transportation/traffic impacts resulting from construction of the proposed Project.

TABLE 3.18-3
SUMMARY OF TRANSPORTATION/TRAFFIC IMPACTS FROM THE PROPOSED TRINITY RIVER BRIDGES PROJECT

Impact	Project Site	No-Action Alternative	Proposed Action	Alternative 1	Alternative 2
1. Construction of the proposed Trinity River Bridges Project would reduce/close existing traffic lanes.	Salt Flat	NI	LS	LS	LS
	Bucktail	NI	LS	LS	N/A
	Poker Bar	NI	LS	LS	N/A
	Biggers Road	NI	LS	LS	N/A
2. Construction of the proposed Trinity River Bridges Project would generate short-term increases in vehicle trips.	Salt Flat	NI	LS	LS	LS
	Bucktail	NI	LS	LS	N/A
	Poker Bar	NI	LS	LS	N/A
	Biggers Road	NI	LS	LS	N/A
3. Construction of the proposed Trinity River Bridges Project would obstruct access to adjacent land uses.	Salt Flat	NI	S	S	S
	Bucktail	NI	S	S	N/A
	Poker Bar	NI	S	S	N/A
	Biggers Road	NI	S	S	N/A
4. Construction of the proposed Trinity River Bridges Project would increase local roadway wear-and-tear.	Salt Flat	NI	S	S	S
	Bucktail	NI	S	S	N/A
	Poker Bar	NI	S	S	N/A
	Biggers Road	NI	S	S	N/A
5. Construction of the proposed Trinity River Bridges Project could result in the loss of available public parking.	Salt Flat	NI	NI	NI	NI
	Bucktail	NI	LS	LS	N/A
	Poker Bar	NI	NI	NI	N/A
	Biggers Road	NI	NI	NI	N/A
6. Construction of the proposed Trinity River Bridges Project could pose a safety hazard to motorists, bicyclists, and pedestrians.	Salt Flat	NI	S	S	LS
	Bucktail	NI	S	S	N/A
	Poker Bar	NI	S	S	N/A
	Biggers Road	NI	S	S	N/A

Notes:
LS = Less than Significant S = Significant NI = No Impact SU = Significant Unavoidable
N/A = Not Applicable

Salt Flat

Impact 3.18-1: Construction of the proposed Trinity River Bridges Project would reduce/close existing traffic lanes. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, construction-related reduction or closure of traffic lanes would not occur because the new bridge would not be constructed at the Salt Flat site. The No-Action Alternative is not anticipated to adversely impact traffic flow in the Project area.

Proposed Action (Replacement Downstream, Private Ownership)

Project construction activities associated with the Proposed Action will be staged to maintain one lane of traffic along Salt Flat Road and across the existing Salt Flat Bridge, which will be rotated and modified to provide temporary construction access and access for property owners during construction. There may be a need to temporarily close the road and/or bridge (i.e., to rotate the existing bridge, to accommodate construction access and delivery of materials to the site, and during construction of the new road alignment and/or bridge abutments). Adequate passage of traffic through the construction area would be accommodated in the event of an emergency evacuation, as discussed in **Section 3.15**, Hazardous Materials. Because potential closures of Salt Flat Road and/or the existing bridge would be temporary in nature, this impact is considered less than significant. There will be a long-term equestrian and pedestrian benefit due to a wider bridge, which will allow a vehicle to pass pedestrians or equestrians. The current bridge is too narrow to allow passage of a pedestrian and a vehicle.

Alternative 1 (Replacement Upstream, Private Ownership)

Similar to the Proposed Action, construction activities associated with Alternative 1 would not result in significant reductions or closure of traffic lanes in the Salt Flat Project vicinity.

Alternative 2 (Replacement Upstream, Public Ownership)

Similar to the Proposed Action and Alternative 1, construction activities associated with Alternative 2 would not result in significant reductions or closure of traffic lanes in the Salt Flat Project vicinity.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1; Alternative 2

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance After Mitigation: N/A.

Impact 3.18-2: Construction of the proposed Trinity River Bridges Project would generate short-term increases in vehicle trips. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, construction-related short-term increases in vehicle trips would not occur because the new bridge would not be constructed at the Salt Flat site. The No-Action Alternative is not anticipated to adversely impact traffic flow in the Project area.

Proposed Action (Replacement Downstream, Private Ownership)

Construction of the Proposed Action would require a number of truck and worker vehicle trips on area roads leading to and from the construction area (Highway 299, Lewiston Road, Goose Ranch Road, and Salt Flat Road) as described previously in this section. During the period of construction when the greatest number of workers and trucks would be required, up to 20 construction workers and 15 trucks would be required. Up to 15 construction workers and an average of 10 trucks would be added to area roads on a daily basis. During the construction phase of the Project, BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the Project site at the end of each workday. Because the existing traffic volumes on area roads located north of Highway 299 (Lewiston Road, Goose Ranch Road, Salt Flat Road) are low and the increase in traffic from construction would be modest and temporary, increased traffic associated with construction of the Proposed Action is not considered significant.

Alternative 1 (Replacement Upstream, Private Ownership)

Similar to the Proposed Action, construction of Alternative 1 would not result in significant increases in vehicle trips on roads in the Salt Flat Project vicinity.

Alternative 2 (Replacement Upstream, Public Ownership)

Similar to the Proposed Action and Alternative 1, construction of Alternative 2 would not result in significant increases in vehicle trips on roads in the Salt Flat Project vicinity.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1; Alternative 2

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance After Mitigation: N/A.

Impact 3.18-3: Construction of the proposed Trinity River Bridges Project would affect access to adjacent land uses. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, construction would not affect access to adjacent land uses because the new bridge would not be constructed at the Salt Flat site. The No-Action Alternative is not anticipated to adversely impact traffic flows or access in the Project area.

Proposed Action (Replacement Downstream, Private Ownership)

As described in **Section 3.2**, Land Use, land uses adjacent to the Salt Flat site include residential areas located on either side of Goose Ranch Road and on both sides of the Trinity River. The residents on the right bank (west) of the Trinity River rely on the Salt Flat Bridge to access their property. As previously described, Project construction activities associated with the Proposed Action will be staged to maintain one lane of traffic along Salt Flat Road and across the existing Salt Flat Bridge, which will be rotated and modified to provide temporary construction access and access for property owners during construction. There may be a need to temporarily close the road and/or bridge (i.e., to rotate the existing bridge, to accommodate construction access and delivery of materials to the site, and during construction of the new road alignment and/or bridge abutments).

Although access to the Trinity River would be restricted in the construction zone during the construction period, numerous access points exist up- and downstream. Impacts relating to recreational activities are discussed under **Section 3.8** (Recreation).

Alternative 1 (Replacement Upstream, Private Ownership)

Similar to the Proposed Action, under Alternative 1 there may be a need to temporarily close the existing road and/or bridge (i.e., during construction of the new road alignment and/or bridge abutments).

Alternative 2 (Replacement Upstream, Public Ownership)

Similar to the Proposed Action and Alternative 1, under Alternative 2 there may be a need to temporarily close the existing road and/or bridge (i.e., during construction of the new road alignment and/or bridge abutments).

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance After Mitigation: N/A.

Proposed Action; Alternative 1; Alternative 2

SF-3a Construction bid documents will require that access be maintained throughout the construction period for all private residences adjacent to the Project.

SF-3b During the construction phase of the Project, BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the Project site at the end of each work day.

Significance After Mitigation: *Less than Significant*

Impact 3.18-4: Construction of the proposed Trinity River Bridges Project would increase local roadway wear-and-tear. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, construction-related wear-and-tear on local roadways would not occur because the new bridge would not be constructed at the Salt Flat site. No construction-related impacts to existing transportation infrastructure are anticipated to result from implementation of the No-Action Alternative.

Proposed Action (Replacement Downstream, Private Ownership)

Under the Proposed Action, construction-related traffic that would be added to area roads would consist of heavy trucks. The use of heavy construction equipment and material to and from the Project work site could affect local road conditions on the designated haul routes by increasing the rate of road wear. The degree to which this impact would occur depends on the design (pavement type and thickness) and the existing condition of the road. On major roadways such as State Route 299, which is designed to accommodate a mix of vehicle types including heavy trucks, the Project's impacts would be negligible. Rural roads are generally not built with a pavement thickness that will withstand substantial heavy truck traffic volumes. Goose Ranch Road is the primary roadway that would be subjected to wear-and-tear, as well as Lewiston Road and Salt Flat Road.

Alternative 1 (Replacement Upstream, Private Ownership)

Construction activities associated with Alternative 1 relative to roadway wear-and-tear would be similar to the Proposed Action.

Alternative 2 (Replacement Upstream, Public Ownership)

Construction activities associated with Alternative 1 relative to roadway wear-and-tear would be similar to the Proposed Action and Alternative 1.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance After Mitigation: N/A.

Proposed Action; Alternative 1; Alternative 2

SF-4a The BOR shall include provisions in the contract specifications that require the construction contractor to perform a pre-construction survey with Trinity County Department of Transportation officials to determine the existing roadway conditions of Goose Ranch Road which will be used as a construction haul route. An agreement would be entered into prior to construction that would detail the pre-construction conditions and post-construction requirements for potential roadway rehabilitation.

SF-4b A post-construction survey of Goose Ranch Road shall be performed with Trinity County Department of Transportation officials to determine if any damage has occurred during construction. If necessary, the BOR shall require the contractor to conduct the required roadway rehabilitation identified in the mutual agreement between the BOR and Trinity County Department of Transportation.

***Significance After Mitigation**: Less than Significant*

Impact 3.18-5: Construction of the proposed Trinity River Bridges Project could result in the loss of available public parking. ***No Impact for the No-Action Alternative, Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

Under the No-Action Alternative, no loss of public parking would occur because the new bridge would not be constructed at the Salt Flat site.

Proposed Action (Replacement Downstream, Private Ownership) / Alternative 1 (Replacement Upstream, Private Ownership)/ Alternative 2 (Replacement Upstream, Public Ownership)

Construction activities associated with the Proposed Action, Alternative 1, or Alternative 2 will not result in the loss of available public parking in the Project area because no public parking exists at the Salt Flat site.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1; Alternative 2

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance After Mitigation: N/A.

Impact 3.18-6: Construction of the proposed Trinity River Bridges Project could pose a safety hazard to motorists, bicyclists, and pedestrians. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action, Alternative 1, and Alternative 2.***

No-Action Alternative

The No-Action Alternative will not pose a safety hazard to motorists, bicyclists, or pedestrians because under this alternative the new bridge would not be constructed at the Salt Flat site.

Proposed Action (Replacement Downstream, Private Ownership)

Traffic safety hazards could arise for motorists, pedestrians, and bicyclists in the vicinity of the work zone where traffic would potentially be directed in a manner that is altered from the usual and expected operation/condition along the Project ESL. For the Salt Flat site, motorists, bicyclists, and/or pedestrians utilizing Salt Flat Road and Goose Ranch Road could be affected the most. There will be a long-term equestrian and pedestrian benefit due to a wider bridge that will allow a vehicle to pass pedestrians or equestrians. The current bridge is too narrow to allow passage of a pedestrian and a vehicle

Alternative 1 (Replacement Upstream, Private Ownership)

Safety concerns associated with construction of Alternative 1 would be similar to the Proposed Action.

Alternative 2 (Replacement Upstream, Public Ownership)

Safety concerns associated with construction of Alternative 2 would be similar to the Proposed Action and Alternative 1, although this alternative will be constructed to meet Trinity County standards for low-use public roads, including, wider lanes, paved surfaces and a pedestrian shoulder. There will be a long-term equestrian and pedestrian benefit due to a wider bridge that will allow a vehicle to pass pedestrians or equestrians. The current bridge is too narrow to allow passage of a pedestrian and a vehicle

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance After Mitigation: N/A.

Proposed Action; Alternative 1; Alternative 2

SF-6a The BOR shall include provisions in the contract specifications that require the construction contractor prepare and implement a traffic control plan that would include: provision and maintenance of temporary access through the construction zone, reduction of speed limits though the construction zone, signage and appropriate traffic control devices, illumination during hours of darkness or limited visibility, use of safety clothing/vests to ensure visibility of construction workers by motorists, and fencing as appropriate to separate pedestrians and bicyclists from construction activities.

Significance After Mitigation: *Less than Significant*

Bucktail

Impact 3.18-1: Construction of the proposed Trinity River Bridges Project would reduce/close existing traffic lanes. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, construction-related reduction or closure of traffic lanes would not occur because the west approach roadway and the existing culvert will not be replaced at the Bucktail site. The No-Action Alternative is not anticipated to adversely impact traffic flow in the Project area.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

Project construction activities associated with the Proposed Action will be staged to maintain one lane of traffic along Browns Mountain Road and across the existing Bucktail Bridge. A detour will be constructed around the existing Browns Mountain Road and culvert to provide access for property owners during construction of the new culvert and roadway. Short-term, temporary closures of Browns Mountain Road may be required during construction of the new culvert and roadway improvements, but adequate passage of traffic during an evacuation event would be accommodated, as discussed in **Section 3.15** (Hazardous Materials). Because potential lane closures along the Project corridor would be temporary in nature, this impact is considered less than significant.

Alternative 1 (Raise Existing Upstream Levee)

Temporary closures of Browns Mountain Road and Bucktail Bridge are not anticipated under Alternative 1. Alternative 1 is not anticipated to adversely impact traffic flow in the Project area.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance After Mitigation: N/A.

Impact 3.18-2: Construction of the proposed Trinity River Bridges Project would generate short-term increases in vehicle trips. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, construction-related short-term increases in vehicle trips would not occur because the west approach roadway and the existing culvert will not be replaced at the Bucktail site. The No-Action Alternative is not anticipated to adversely impact traffic flow in the Project area.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

Construction of the Proposed Action would require a number of truck and worker vehicle trips on area roads leading to and from the construction area (Highway 299, Lewiston Road, and Browns Mountain Road) as described previously in this section. During the period of construction when the greatest number of workers and trucks would be required, up to 20 construction workers and 15 trucks would be required. Up to 15 construction workers and an average of 10 trucks would be added to area roads on a daily basis. During the construction phase of the Project, BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the Project site at the end of each workday. Because the existing traffic volumes on area roads located north of Highway 299 (Lewiston Road, Browns Mountain Road) are low and the increase in traffic from construction would be modest and temporary, increased traffic associated with construction of the Proposed Action is not considered significant.

Alternative 1 (Raise Existing Upstream Levee)

Similar to the Proposed Action, construction of Alternative 1 would not result in significant increases in vehicle trips on roads in the Bucktail Project vicinity.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance After Mitigation: N/A.

Impact 3.18-3: Construction of the proposed Trinity River Bridges Project would affect access to adjacent land uses. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, construction would not affect access to adjacent land uses because the right (west) approach roadway and the existing culvert will not be replaced at the Bucktail site. The No-Action Alternative is not anticipated to adversely impact traffic flows or access in the Project area.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

As described in **Section 3.2** (Land Use), land uses adjacent to the Bucktail site consist of rural residential and public lands managed by BLM for public recreation. The residents of the Bucktail Subdivision rely on Bucktail Bridge to

access their property. As previously described, Project construction activities associated with the Proposed Action will be staged to maintain one lane of traffic along Brown's Mountain Road and across the existing bridge. Short-term, temporary closures of Brown's Mountain Road may be required during construction of the new culvert and roadway improvements.

As described in **Section 3.8**, Recreation, the Bucktail site offers numerous opportunities for recreating in and around the Trinity River, including a day-use recreational area that offers river access, parking, restrooms and undeveloped boat launching, and a popular fishing access point (Bucktail Hole). Impacts relating to recreational activities are discussed under **Section 3.8**.

Alternative 1 (Raise Existing Upstream Levee)

Temporary closures of Brown's Mountain Road and Bucktail Bridge are not anticipated under Alternative 1. Construction associated with Alternative 1 may temporarily restrict residents' access to the Trinity River, and may temporarily disrupt recreational use of the Trinity River in the Project vicinity. Impacts relating to recreational activities are discussed under **Section 3.8**.(Recreation).

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance After Mitigation: N/A.

Proposed Action; Alternative 1

BT-3a Construction bid documents will require that access be maintained throughout the construction period for all private residences adjacent to the Project.

BT-3b During the construction phase of the Project, BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the Project site at the end of each work day.

Significance After Mitigation: *Less than Significant*

Impact 3.18-4: Construction of the proposed Trinity River Bridges Project would increase local roadway wear-and-tear. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, construction-related wear-and-tear on local roadways would not occur because the west approach roadway and the existing culvert will not be replaced at the Bucktail site. No construction-related impacts to existing transportation infrastructure are anticipated to result from implementation of the No-Action Alternative.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

Under the Proposed Action, construction-related traffic that would be added to area roads would consist of heavy trucks. The use of heavy construction equipment and material to and from the Project work site could affect local

road conditions on the designated haul routes by increasing the rate of road wear. The degree to which this impact would occur depends on the design (pavement type and thickness) and the existing condition of the road. On major roadways such as State Route 299, which is designed to accommodate a mix of vehicle types including heavy trucks, the Project's impacts would be negligible. Rural roads are generally not built with a pavement thickness that will withstand substantial heavy truck traffic volumes. Brown's Mountain Road is the primary roadway that would be subjected to wear-and-tear, as well as Lewiston Road.

Alternative 1 (Raise Existing Upstream Levee)

Construction activities associated with Alternative 1 relative to roadway wear-and-tear would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance After Mitigation: N/A.

Proposed Action; Alternative 1

BT-4a The BOR shall include provisions in the contract specifications that require the construction contractor to perform a pre-construction survey with Trinity County Department of Transportation officials to determine the existing roadway conditions of Brown's Mountain Road, which will be used as a construction haul route. An agreement would be entered into prior to construction that would detail the pre-construction conditions and post-construction requirements for potential roadway rehabilitation.

BT-4b A post-construction survey of Brown's Mountain. Road shall be performed with Trinity County Department of Transportation officials to determine if any damage has occurred during construction. If necessary, the BOR shall require the contractor to conduct the required roadway rehabilitation identified in the mutual agreement between the BOR and Trinity County Department of Transportation.

Significance After Mitigation: N/A.

Impact 3.18-5: Construction of the proposed Trinity River Bridges Project could result in the loss of available public parking. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no loss of public parking would occur because the west approach roadway and the existing culvert will not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

Designated parking is available northeast and southeast of the existing Bucktail Bridge. Construction activities associated with the raised roadway and installation of the new arch culvert, including staging on BLM lands to the east, could temporarily limit public parking in the Project area. Increasing the elevation of the western road approach would result in the permanent loss of unimproved parking used by the public to access the river; however, alternative

parking will be provided on BLM lands located north of Brown's Mountain Road and east of the Bucktail bridge upon Project completion.

Alternative 1 (Raise Existing Upstream Levee)

Short-term parking disruptions are not anticipated under Alternative 1 since there are no roadway or culvert improvements associated with this alternative.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance After Mitigation: N/A.

Impact 3.18-6: Construction of the proposed Trinity River Bridges Project could pose a safety hazard to motorists, bicyclists, and pedestrians. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

The No-Action Alternative will not pose a safety hazard to motorists, bicyclists, or pedestrians because under this alternative the west approach roadway and the existing culvert will not be replaced at the Bucktail site.

Proposed Action (Raised Right Approach Roadway and New Arch Culvert)

Traffic safety hazards could arise for motorists, pedestrians, and bicyclists in the vicinity of the work zone where traffic would potentially be directed in a manner that is altered from the usual and expected operation/condition along the Project ESL. For the Bucktail site, motorists, bicyclists, and/or pedestrians utilizing Brown's Mountain Road could be affected the most.

Alternative 1 (Raise Existing Upstream Levee)

Fewer traffic safety hazards are associated with construction of Alternative 1, compared to the Proposed Action, since no culvert replacement or roadway improvements are associated with this alternative. However, since there will be heavy construction equipment and vehicles within the Project ESL, there is potential for posing a safety hazard, primarily to pedestrians accessing the Trinity River.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance After Mitigation: N/A

Proposed Action; Alternative 1

BT-6a The BOR shall include provisions in the contract specifications that require the construction contractor prepare and implement a traffic control plan that would include: provision and maintenance of temporary access through the construction zone, reduction of speed limits though the construction zone, signage and appropriate traffic control devices, illumination during hours of darkness or limited visibility, use of safety clothing/vests to ensure visibility of construction workers by motorists, and fencing as appropriate to separate pedestrians and bicyclists from construction activities.

Significance After Mitigation: *Less than Significant*

Poker Bar

Impact 3.18-1: Construction of the proposed Trinity River Bridges Project would reduce/close existing traffic lanes. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, construction-related reduction or closure of traffic lanes would not occur because the new bridges would not be constructed at the Poker Bar site. The No-Action Alternative is not anticipated to adversely impact traffic flow in the Project area.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

Project construction activities associated with the Proposed Action will be staged to maintain one lane of traffic along Poker Bar Road, Bridge Road, and across the existing Poker Bar Bridges. The existing bridges will remain open to traffic and will provide access for homeowners and construction equipment and personnel during construction associated with the Proposed Action. Temporary closures of Poker Bar Road, Bridge Road, and the existing bridges may be necessary at times during construction, particularly when tying the new road alignment onto the existing road alignment, but adequate passage of traffic during an evacuation event would be accommodated as discussed in **Section 3.15** (Hazardous Materials). Because potential closures would be temporary in nature, this impact is considered less than significant.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Similar to the Proposed Action, construction activities associated with Alternative 1 would not result in significant reductions or closure of traffic lanes in the Poker Bar Project vicinity.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance After Mitigation: N/A.

Impact 3.18-2: Construction of the proposed Trinity River Bridges Project would generate short-term increases in vehicle trips. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, construction-related short-term increases in vehicle trips would not occur because the new bridges would not be constructed at the Poker Bar site. The No-Action Alternative is not anticipated to adversely impact traffic flow in the Project area.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

Construction of the Proposed Action would require a number of truck and worker vehicle trips on area roads leading to and from the construction area (Highway 299, Poker Bar Road, and Bridge Road) as described previously in this section. During the period of construction when the greatest number of workers and trucks would be required, up to 20 construction workers and 15 trucks would be required. Up to 15 construction workers and an average of 10 trucks would be added to area roads on a daily basis. During the construction phase of the Project, BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the Project site at the end of each workday. Because the existing traffic volumes on area roads located north of Highway 299 (Poker Bar Road and Bridge Road) are low and the increase in traffic from construction would be modest and temporary, increased traffic associated with construction of the Proposed Action is not considered significant.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Similar to the Proposed Action, construction of Alternative 1 would not result in significant increases in vehicle trips on roads in the Poker Bar Project vicinity.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance After Mitigation: N/A.

Impact 3.18-3: Construction of the proposed Trinity River Bridges Project would affect access to adjacent land uses. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, construction would not affect access to adjacent land uses because the new bridges would not be constructed at the Poker Bar site. The No-Action Alternative is not anticipated to adversely impact traffic flows or access in the Project area.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

As described in **Section 3.2** (Land Use), land uses adjacent to the Poker Bar site include residential areas located on either side of Bridge Road and on both sides of the Trinity River. The residents northwest of the Trinity River rely on the Poker Bar Bridge to access their property. As previously described, Project construction activities associated with the Proposed Action will be staged to maintain one lane of traffic along Poker Bar Road, Bridge Road, and across the existing Poker Bar Bridge. There may be a need to temporarily close the road and/or bridge (i.e., to accommodate

construction access and delivery of materials to the site, during construction of the new road alignment and/or bridge abutments).

Although access to the Trinity River would be restricted in the construction zone during the construction period, numerous access points exist up- and downstream of the Project site. Impacts relating to recreational activities are discussed under **Section 3.8**.(Recreation)

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Similar to the Proposed Action, under Alternative 1 there may be a need to temporarily close the existing road and/or bridge.

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance After Mitigation: N/A.

Proposed Action; Alternative 1

PB-3a Construction bid documents will require that access be maintained throughout the construction period for all private residences adjacent to the Project.

PB-3b During the construction phase of the Project, BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the Project site at the end of each work day.

***Significance After Mitigation**: Less than Significant*

Impact 3.18-4: Construction of the proposed Trinity River Bridges Project would increase local roadway wear-and-tear. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, construction-related wear-and-tear on local roadways would not occur because the new bridges would not be constructed at the Poker Bar site. No construction-related impacts to existing transportation infrastructure are anticipated to result from implementation of the No-Action Alternative.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

Under the Proposed Action, construction-related traffic that would be added to area roads would consist of heavy trucks. The use of heavy construction equipment and material to and from the Project work site could affect local road conditions on the designated haul routes by increasing the rate of road wear. The degree to which this impact would occur depends on the design (pavement type and thickness) and the existing condition of the road. On major roadways such as State Route 299, which is designed to accommodate a mix of vehicle types including heavy trucks, the Project's impacts would be negligible. Rural roads are generally not built with a pavement thickness that will withstand substantial heavy truck traffic volumes. Bridge Road and Poker Bar Road are the primary roadways that would be subjected to wear-and-tear, as well as Old Lewiston Road, which would provide access to and from the Project site to a staging area located at the Bucktail site.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Construction activities associated with Alternative 1 relative to roadway wear-and-tear would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance After Mitigation: N/A.

Proposed Action; Alternative 1

PB-4a The BOR shall include provisions in the contract specifications that require the construction contractor to perform a pre-construction survey with Trinity County Department of Transportation officials to determine the existing roadway conditions of Poker Bar and Bridge Road which will be used as a construction haul route. An agreement would be entered into prior to construction that would detail the pre-construction conditions and post-construction requirements for potential roadway rehabilitation.

PB-4b A post-construction survey of Poker Bar and Bridge Road shall be performed with Trinity County Department of Transportation officials to determine if any damage has occurred during construction. If necessary, the BOR shall require the contractor to conduct the required roadway rehabilitation identified in the mutual agreement between the BOR and Trinity County Department of Transportation.

***Significance After Mitigation**: Less than Significant*

Impact 3.18-5: Construction of the proposed Trinity River Bridges Project could result in the loss of available public parking. ***No Impact for the No-Action Alternative, Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no loss of public parking would occur because the new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures) / Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Construction activities associated with the Proposed Action and with Alternative 1 will not result in the loss of available public parking in the Project area because no public parking exists at the Poker Bar site.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance After Mitigation: N/A.

Impact 3.18-6: Construction of the proposed Trinity River Bridges Project could pose a safety hazard to motorists, bicyclists, and pedestrians. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

The No-Action Alternative will not pose a safety hazard to motorists, bicyclists, or pedestrians because under this alternative the new bridges would not be constructed at the Poker Bar site.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

Traffic safety hazards could arise for motorists, pedestrians, and bicyclists in the vicinity of the work zone where traffic would potentially be directed in a manner that is altered from the usual and expected operation/condition along the Project ESL. For the Poker Bar site, motorists, bicyclists, and/or pedestrians utilizing Poker Bar Road and Bridge Road could be affected the most.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Safety concerns associated with construction of Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance After Mitigation: N/A.

Proposed Action; Alternative 1

PB-6a The BOR shall include provisions in the contract specifications that require the construction contractor prepare and implement a traffic control plan that would include: provision and maintenance of temporary access through the construction zone, reduction of speed limits though the construction zone, signage and appropriate traffic control devices, illumination during hours of darkness or limited visibility, use of safety clothing/vests to ensure visibility of construction workers by motorists, and fencing as appropriate to separate pedestrians and bicyclists from construction activities.

***Significance After Mitigation**: Less than Significant*

Biggers Road

Impact 3.18-1: Construction of the proposed Trinity River Bridges Project would reduce/close existing traffic lanes. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, construction-related reduction or closure of traffic lanes would not occur because the new bridge would not be constructed at the Biggers Road site. The No-Action Alternative is not anticipated to adversely impact traffic flow in the Project area.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

The existing Biggers Road Bridge will remain open to traffic and provide access for homeowners, construction equipment, and personnel during construction. A minimum of one lane of traffic will be accommodated through the

construction site at all times. Temporary closures of Biggers Road Bridge and Steel Bridge Road may be necessary at times during construction, but adequate passage of traffic during an evacuation event would be accommodated as discussed in **Section 3.15** (Hazardous Materials). Because potential closures of Steel Bridge Road and/or the existing bridge would be temporary in nature, this impact is considered less than significant.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Under Alternative 1, traffic will be maintained on the existing bridge and roadway alignment as the new bridge is constructed. Single lane closures and staged construction on Steel Bridge Road are anticipated to be required to complete the construction of the approach roadway at the east side of the bridge. A minimum of one lane of traffic will be accommodated through the construction site at all times. It is estimated that Steel Bridge Road will require intermittent daily closures approximately four hours per day, between the hours of 9 am and 3 pm, for approximately two weeks during construction of the retaining wall and the raising of Steel Bridge Road. In the event of an emergency, adequate passage of traffic during an evacuation event would be accommodated.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance After Mitigation: N/A.

Impact 3.18-2: Construction of the proposed Trinity River Bridges Project would generate short-term increases in vehicle trips. ***No Impact for the No-Action Alternative; Less than Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, construction-related short-term increases in vehicle trips would not occur because the new bridge would not be constructed at the Biggers Road site. The No-Action Alternative is not anticipated to adversely impact traffic flow in the Project area.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

Construction of the Proposed Action would require a number of truck and worker vehicle trips on area roads leading to and from the construction area (Highway 299, Steel Bridge Road, Biggers Road) as described previously in this section. During the period of construction when the greatest number of workers and trucks would be required, up to 20 construction workers and 15 trucks would be required. Up to 15 construction workers and an average of 10 trucks would be added to area roads on a daily basis. During the construction phase of the Project, BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the Project site at the end of each workday. Because the existing traffic volumes on area roads located north of Highway 299 (i.e., Steel Bridge Road, Biggers Road) are low and the increase in traffic from construction would be modest and temporary, increased traffic associated with construction of the Proposed Action is not considered significant.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Similar to the Proposed Action, construction of Alternative 1 would not result in significant increases in vehicle trips on roads in the Project vicinity.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance After Mitigation: N/A.

Impact 3.18-3: Construction of the proposed Trinity River Bridges Project would affect access to adjacent land uses. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, construction would not affect access to adjacent land uses because the new bridge would not be constructed at the Biggers Road site. The No-Action Alternative is not anticipated to adversely impact traffic flows or access in the Project area.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

As described in **Section 3.2** (Land Use), land uses adjacent to the Biggers Road site include residential areas located along Steel Bridge Road and on both sides of the Trinity River. Several residents located west of the Trinity River rely on the Biggers Road Bridge to access their property. As previously described, Project construction activities associated with the Proposed Action will be staged to maintain one lane of traffic along Steel Bridge Road and across the existing Biggers Road bridge. There may be a need to temporarily close the road and/or bridge (i.e., to accommodate construction access and delivery of materials to the site, during construction of the new road alignment and/or bridge abutments).

Although access to the Trinity River would be restricted in the construction zone during the construction period, numerous access points exist up- and downstream. Impacts relating to recreational activities are discussed under **Section 3.8**.(Recreation)

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Similar to the Proposed Action, under Alternative 1 there may be a need to temporarily close the existing road and/or bridge (i.e., during construction of the new road alignment and/or bridge abutments).

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance After Mitigation: N/A.

Proposed Action; Alternative 1

BR-3a Construction bid documents will require that access be maintained throughout the construction period for all private residences adjacent to the Project.

BR-3b During the construction phase of the Project, BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the Project site at the end of each work day.

Significance After Mitigation: *Less than Significant*

Impact 3.18-4: Construction of the proposed Trinity River Bridges Project would increase local roadway wear-and-tear. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, construction-related wear-and-tear on local roadways would not occur because the new bridge would not be constructed at the Biggers Road site. No construction-related impacts to existing transportation infrastructure are anticipated to result from implementation of the No-Action Alternative.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

Under the Proposed Action, construction-related traffic that would be added to area roads would consist of heavy trucks. The use of heavy construction equipment and material to and from the Project work site could affect local road conditions on the designated haul routes by increasing the rate of road wear. The degree to which this impact would occur depends on the design (pavement type and thickness) and the existing condition of the road. On major roadways such as State Route 299, which is designed to accommodate a mix of vehicle types including heavy trucks, the Project's impacts would be negligible. Rural roads are generally not built with a pavement thickness that will withstand substantial heavy truck traffic volumes. Steel Bridge Road and Biggers Road are the primary roadways that would be subjected to wear-and-tear, as well as Old Lewiston Road, which connects the staging area at Bucktail to the Biggers Road site.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Construction-related wear-and-tear on local roadways during construction of Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance After Mitigation: N/A.

Proposed Action; Alternative 1

BR-4a The BOR shall include provisions in the contract specifications that require the construction contractor to perform a pre-construction survey with Trinity County Department of Transportation officials to determine the existing roadway conditions of Biggers and Steel Bridge Road that will be used as a construction haul route. An agreement would be entered into prior to construction that would detail the pre-construction conditions and post-construction requirements for potential roadway rehabilitation.

BR-4b A post-construction survey of Bigger and Steel Bridge Road shall be performed with Trinity County Department of Transportation officials to determine if any damage has occurred during construction. If necessary, the BOR shall require the contractor to conduct the required roadway rehabilitation identified in the mutual agreement between the BOR and Trinity County Department of Transportation.

Significance After Mitigation: *Less than Significant*

Impact 3.18-5: Construction of the proposed Trinity River Bridges Project could result in the loss of available public parking. ***No Impact for the No-Action Alternative, Proposed Action and Alternative 1.***

No-Action Alternative

Under the No-Action Alternative, no loss of public parking would occur because the new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream with Two Single-Span Structures) / Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Construction activities associated with the Proposed Action and with Alternative 1 will not result in the loss of available public parking in the Project area because no public parking exists at the Biggers Road site.

Mitigation Measures

No-Action Alternative; Proposed Action; Alternative 1

Since no significant impact was identified for these alternatives, no mitigation is required.

Significance After Mitigation: N/A.

Impact 3.18-6: Construction of the proposed Trinity River Bridges Project could pose a safety hazard to motorists, bicyclists, and pedestrians. ***No Impact for the No-Action Alternative; Significant Impact for the Proposed Action and Alternative 1.***

No-Action Alternative

The No-Action Alternative will not pose a safety hazard to motorists, bicyclists, or pedestrians because under this alternative the new bridge would not be constructed at the Biggers Road site.

Proposed Action (Replacement Upstream with Two Single-Span Structures)

Traffic safety hazards could arise for motorists, pedestrians, and bicyclists in the vicinity of the work zone where traffic would potentially be directed in a manner that is altered from the usual and expected operation/condition along the Project ESL. For the Biggers Road site, motorists, bicyclists, and/or pedestrians utilizing Steel Bridge Road and Biggers Road could be affected the most. There will be a long-term equestrian and pedestrian benefit due to a wider bridge which will allow a vehicle to pass pedestrians or equestrians. The current bridge is too narrow to allow passage of a pedestrian and a vehicle

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Safety concerns associated with construction of Alternative 1 would be similar to the Proposed Action.

Mitigation Measures

No-Action Alternative

Since no significant impact was identified, no mitigation is required.

Significance After Mitigation: N/A.

Proposed Action; Alternative 1

BR-6a The BOR shall include provisions in the contract specifications that require the construction contractor prepare and implement a traffic control plan that would include: provision and maintenance of temporary access through the construction zone, reduction of speed limits though the construction zone, signage and appropriate traffic control devices, illumination during hours of darkness or limited visibility, use of safety clothing/vests to ensure visibility of construction workers by motorists, and fencing as appropriate to separate pedestrians and bicyclists from construction activities.

***Significance After Mitigation**: Less than Significant*

CHAPTER 4

Other Statutory Considerations

Chapter 4

Other Statutory Considerations

This chapter addresses other statutory considerations that need to be evaluated pursuant to NEPA and/or CEQA guidelines. The following sections address these specific statutory considerations, with the applicable environmental guidelines noted in parenthesis:

- 4.1 - Cumulative Impacts (NEPA and CEQA)
- 4.2 - Growth-Inducing Impacts (NEPA and CEQA)
- 4.3 - Significant Irreversible and Irretrievable Commitments of Resources Which Would Result From the Proposed Action (NEPA and CEQA)
- 4.4 - Relationship Between Local Short-Term Uses of the Environment and the Maintenance and Enhancement of Long-Term Productivity (NEPA)
- 4.5 - Mitigation Monitoring Program for CEQA-Mandated Mitigation (CEQA)
- 4.6 - Significant Unavoidable Adverse Impacts (CEQA)
- 4.7 - Findings of Fact and Statements of Overriding Consideration (CEQA)

4.1 Cumulative Impacts

4.1.1 Legal Requirements

Cumulative impacts are the impacts on the environment that result from the incremental impacts of the Proposed Action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or entity under-takes such other actions. State *CEQA Guidelines* and Council on Environmental Quality (CEQ) NEPA regulations require that the cumulative impacts of a proposed project be addressed in the EA/EIR when the cumulative impacts are expected to be significant (14 CCR 15130[a], 40CFR 1508.25[a][2]). Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

Cumulative impacts are impacts on the environment that result from the incremental impact of the Proposed Action when added to other past, present and reasonably foreseeable future actions (14 CCR 15355[b], 40 CFR 1508.7). These impacts can result from individually minor but collectively significant actions taking place over time.

4.1.2 Methodology

The analysis of cumulative effects in this EA/EIR addresses cumulative impacts of the proposed Project in general with no separate analysis for each alternative. It is recognized that the Proposed Action may be implemented in an

interactive manner with other concurrent projects. In addition, these other projects may affect the impacts of the Proposed Action.

According to the *CEQA Guidelines*, the cumulative impacts discussion "should be guided by the standards of practicality and reasonableness." The *CEQA Guidelines* require that a cumulative impacts analysis identify related projects, summarize the expected environmental effects of those related projects, and analyze the cumulative impacts of the proposed and related projects. To identify the related projects, the *CEQA Guidelines* recommend either

- the list approach, which entails listing past, present and reasonable anticipated future projects producing related or cumulative impacts, including those projects outside the control of the agency; or
- the projection approach, which uses a summary of projections contained in an adopted general plan or related planning document that is designed to evaluate regional or area wide conditions.

This cumulative impacts section identifies the related projects through the list approach, based on input from the lead and cooperating agencies. The geographic scope of the area examined for cumulative effects is the Trinity River Corridor between Lewiston Dam and the confluence of the North Fork Trinity River (Helena, CA). The following section summarizes the projects that were considered in this section.

Fish Habitat Management

Forty-seven mechanical rehabilitation projects were identified in the FEIS/EIR for the Trinity River Mainstem Fishery Restoration Project (USFWS et al. 2000a). Although, as explained in **Section 1.1** of this EA/EIR and as further described below, the United States District Court has set aside the FEIS portion of the FEIS/EIR, the court has authorized these projects to proceed, and they are in various stages of planning.

These projects are being planned and implemented by the TRRP, with oversight from the Trinity Management Council. The TRRP has two distinct program elements: 1) the Rehabilitation and Implementation Group, responsible for project development, engineering, and regulatory compliance and, 2) the Technical Modeling and Analysis Group, responsible for project development, monitoring, and integrating activities in an adaptive management framework. A number of federal, state and local participants are involved at both, the policy and project level. Active participants include the BOR, USFWS, NMFS, USFS, BLM, California Resources Agency (CRA), Trinity County, and the Hoopa Valley and Yurok Tribes.

At least two projects are slated for implementation by the TRRP in 2003 and 2004. These projects include development of a pilot restoration site, Hocker Flat, and placement of spawning gravel in the Trinity River at the cableway site in Lewiston, California.

The Hocker Flat restoration site will be located downstream of Canyon Creek where natural tributary accretion to mainstem flows has a higher likelihood of maintaining the site prior to implementation of the ROD recommended flow regime than upstream sites. The TRRP's goals for Hocker Flat are to develop and implement a self-maintaining restoration project that will:

- Increase diversity and area of habitat for salmonids, particularly habitat suitable for rearing

- Increase structural and biological complexity of habitat for various species of wildlife associated with riparian habitats
- Increase hydraulic and fluvial geomorphic diversity and complexity

The design will seek to encourage desirable geomorphic features, including a more sinuous channel, increased diversity in the longitudinal profile, dynamic alternate bar sequences, a floodplain frequently accessible by the future flow regime, fine sediment deposition on the floodplain during overbank flows, increase channel morphology and hydraulic complexity, increased exposed gravel bars, increased secondary high-flow channels, and off-channel wetlands.

The development and implementation of a Spawning Gravel Management Plan may result in the placement of about 10,300 cubic yards annually, with an estimated range from 0 cubic yards in critically dry water years to 49,100 cubic yards in extremely wet water years (actual amounts would be determined by ongoing monitoring).

The Lewiston gravel augmentation project plans to place spawning gravel directly into the mainstem Trinity River, for the purpose of immediately creating a new spawning riffle. The new spawning riffle would benefit the Trinity River fisheries by increasing the quality and quantity of habitat at this location. The project consists of adding approximately 2,000 cubic yards of washed spawning gravel, ½ inch to five inches in diameter, directly into the mainstem Trinity River immediately upstream of the old Lewiston Bridge, Lewiston, California, at RM 110.2. Gravel would be mechanically spread over the riverbed in an area approximately 325 feet long by 89 feet wide, and in a layer one to two feet thick.

Rush Creek Delta Rehabilitation Project

The Rush Creek Delta Project is intended to address the relationship of accumulated sediments at the mouth of Rush Creek and the flow modifications of the Trinity River associated with the TRD. Planned for 2003, this project will be designed to reduce the impacts to private lands in the immediate vicinity of the Rush Creek Delta. This project will be designed to route coarse sediment through the delta while reducing impacts to the Trinity River fisheries.

Supplemental Flow EIS/EIR

The Trinity River is a major tributary of the Klamath River system and has been subject to extensive water development as part of the CVP. Efforts have been underway since the TRD of the CVP was constructed to mitigate its adverse affects on salmonid habitat. The FEIS, completed in 2000 (USFWS et al. 2000a), resulted in a ROD to implement a restoration program consisting of "a combination of managed high flow releases, mechanical riparian berm removal, and gravel augmentation to redirect geomorphic processes so that a more complex channel form will evolve, creating the mosaic of aquatic habitats necessary to enhance freshwater salmonid production" (USFWS and HVT 1999). A December 2002 U.S. District Court (Court) decision ruled that the ROD flow regime was "arbitrary" and capped Trinity River instream flow deliveries at 452,600 af, an amount similar to that prescribed for dry years by the ROD. In this ruling, the Court ordered the Interior Department to re-evaluate the ROD's flow prescriptions, their impacts on the CVP service area, and complete a supplemental environmental study for the Trinity River Mainstem Fishery Restoration Project, which is expected in 2003.

However, the Court also ordered that all non-flow measures prescribed by the ROD, such as bank and channel restoration and necessary bridge replacement shall be allowed to proceed. The Court's ruling reiterated two previous

findings by the Court that the ROD's non-flow measures create no harm and provide an overwhelming benefit to the Trinity River fishery and for the U.S. government's need to discharge its federal trust obligation owed to the Indian Tribes (*Westlands Water District, San Luis & Delta-Mendota Water Authority, and San Benito Water Authority, et al.* v. *U.S. DOI, et al.*, CIV-F-00-7124 OWW DLB, U.S. District Court, Eastern District of California, 2002).

A biological opinion issued on the Trinity River Mainstem Fishery Restoration Project in 2000 found that the program "*is not likely to jeopardize the continued existence of* [SONCC ESU] *coho salmon*," and "*is not likely to destroy or adversely modify critical habitat for the* [SONCC ESU] *coho salmon.*" Included in this biological opinion was an incidental take statement that included terms and conditions to implement Reasonable and Prudent Measures (RPM) to, "*Ensure that the replacement bridges* [addressed by this Biological Assessment] *and other infrastructure modifications, are designed and completed as soon as possible.*" This RPM is necessary to accommodate river flows of the magnitude prescribed for fluvial channel maintenance that can support anadromous fish habitat restoration in the Trinity River (USFWS and HVT 1999).

California Coastal Salmonid Restoration Program / Five Counties Salmonid Conservation Program

As a result of the proposed listing of the coho salmon in the northern California/southern Oregon ESU, the counties of Humboldt, Trinity, Del Norte, Siskiyou, and Mendocino joined together to assist in the recovery of coho, and now steelhead. The overall goal of the counties is to address and improve anadromous salmonid habitat as well as conservation and restoration within the five-county area, such that the listings do not result in massive economic impacts similar to the spotted owl listing. Significant funding has or is being provided by the NMFS, SWRCB (Proposition 204 Delta Tributary Watershed Program), CDFG (SB 271) for the Sake of the Salmon, and the CRA.

In 1997, the CDFG established the Salmonid Restoration Program for coastal watersheds. Initiatives included in this program support, watershed planning projects at a local level, coastal salmon and anadromous trout habitat restoration, and improved efforts to manage anadromous salmon. The program includes a Salmon and Steelhead Trout Restoration Account, to be expended on a wide range of issues including: watershed planning, on-the-ground habitat restoration projects, and other restoration-related efforts for restoring salmonid populations. This fund also finances a Watershed Restoration and Protection Council that 1) oversees State watershed protection and enhancement activities, and 2) directs and develops a Watershed Protection Program to provide for anadromous salmonid conservation.

Trinity County is participating in the Salmonid Restoration Program through the Five Counties Salmon Conservation Program. The Five Counties Program, consisting of Trinity, Del Norte, Siskiyou, Humboldt, and Mendocino counties, is coordinating and prioritizing restoration projects and developing standard practices to prevent degradation of salmonid habitat resulting from county road projects. The NMFS has nominated the Five Counties Program for the Governor's Environmental and Economic Leadership Award in the area of Watershed Management, for "laudable efforts of restoring, enhancing, and improving California's watersheds, while promoting sustainable economic progress."

The Five Counties group has inventoried fish passage barriers at County road crossings and sediment delivery sources along County roads. Prioritized projects were identified to improve fish passage, and reduce sediment delivery to both salmonid bearing and non-salmonid bearing streams in the Trinity, Klamath, Eel, Mad, Van Duzen, Redwood Creek, Smith, Gualala and other major coastal watersheds. Fish barriers have been removed at a rate of five to 10 per

year for the last three years, and future projects are in the planning and design stage. Sediment reduction projects have been planned and implemented in a number of locations as part of this program. The group has prepared a Water Quality and Stream Habitat Protection Manual for County Road Maintenance in Northwestern California Watersheds, several drafts of which have been reviewed and commented on by the NMFS, the CDFG and the NCRWQCB. With these agencies' concurrence, the final Manual will be circulated for public review and presented to the Board of Supervisors from each County for adoption as County policy.

Clean Water Action Section 303(d) Total Maximum Daily Load Requirements

The TMDL and accompanying source allocation for sediment in various reaches and tributaries of the Trinity River has been established to comply with Section 303(d) of the Clean Water Act, because the State of California determined that the water quality standards for the Trinity River have been consistently exceeded due to excessive sediment. The TMDL for sediment describes how seasonal variation is considered. Sediment delivery in the Trinity River watershed inherently has considerable annual and seasonal variability. Due to variability in terms of magnitude, timing, duration and frequency, the TMDL and load allocation applies to the sources of sediment and uses a ten-year rolling average. A number of contributing causes were identified including: historic mining effects, past road building activities, certain timber-harvesting practices, and the concomitant effects of reduced bed-mobilizing river flows, due to the TRD, on sediment transport (EPA 2001). The TMDL does not allocate flow, however it does take into account critical conditions for flow, loading and water quality parameters. The control of the streamflow below the TRD has greatly contributed to the impairment of the Trinity River below Lewiston Dam (EPA 2001). The reduction in available coarse sediment upstream of Rush Creek and the significant contribution of fine sediment from Grass Valley Creek have severely affected the sediment flux in the river. These effects are observable as far downstream as the North Fork.

In 2001, the EPA established the TMDL, with assistance from NCRWQCB staff (EPA 2001). The primary adverse impacts associated with excessive sediment in the Trinity River pertain to the beneficial uses ascribed to anadromous salmonid fish habitat. The main responsibility for water quality management and monitoring resides with the State. The EPA now expects the State to develop and submit implementation measures to the EPA as part of revisions to the State water quality management plan, as provided by the EPA regulations in 40 CFR Sec. 130.6.

4.1.3 Issue-Specific Cumulative Impact Analysis

The following discussion identifies potential cumulative impacts that are anticipated as a result of implementing the proposed project (including the No-Action Alternative, Proposed Action, and all other project action alternatives) in relation to past, present, and reasonably foreseeable projects for each resource area described in **Chapter 3**. In other words, the discussion identifies those areas in which the impacts of the proposed project, when viewed against the backdrop of these other projects, could cause an incremental impact that is "cumulatively considerable" within the meaning of the CEQA. Where appropriate, Cumulative Significant Impacts are described pursuant to the *CEQA Guidelines*. Section 15130 defines this, as "A cumulative significant impact would result in a substantial change in the environment from effects of the project as well as surrounding projects and reasonably foreseeable development in the surrounding area."

Land Use

Under the No-Action Alternative, the existing bridges will remain in place, and the threat to public safety and limitations on future flow releases will continue. No significant cumulative land use effects are anticipated to result from the No-Action Alternative. The selection of the No-Action Alternative may limit the ability of the TRRP to achieve the overall goal of restoration of the Trinity River.

No significant cumulative land use effects are anticipated to occur under any Action Alternatives. The upgrades to Trinity River crossings in close proximity to the existing bridges will provide safe access and accommodate the anticipated use for the foreseeable future. The four projects cumulatively would not result in increased growth beyond what has been planned under the Trinity County General Plan.

Geology, Fluvial Geomorphology, and Soils

Under the No-Action Alternative the existing bridges will remain in place, and the effects on geology, fluvial geomorphology, and soils will be similar to those that have occurred since the construction and operation of the TRD. No significant cumulative land use effects are anticipated resultant from the No-Action Alternative. The selection of the No-Action Alternative may limit the ability of the TRRP to achieve the overall goal of restoration of the Trinity River.

No significant cumulative effects associated with geologic hazards, geomorphic processes or erosional processes are anticipated to occur due to implementation of the project under any of the Action Alternatives. Appropriate implementation of prescribed mitigation measures will adequately mitigate for potential impacts regarding geologic hazards. The short-term erosional aspects will be addressed through implementation of the prescribed mitigation measures in conformance with the Trinity River TMDL and Trinity County Decomposed Granite Grading Ordinance. The fluvial geomorphic processes embodied in the Healthy River Attributes will be affected at the local level, however these effects will not be significant at the scale previously described.

In short, the Project as mitigated will benefit, rather than adversely affect, geology, fluvial geomorphology, and soils in the long term, as will most of the other related projects described in this chapter. Thus, far from creating adverse impacts that will compound or exacerbate the adverse impacts of other projects, the proposed Project will contribute to long-term environmental benefits assist in meeting the TMDL sediment requirements for the Trinity River.

Water Resources

Under the No-Action Alternative the existing bridges will remain in place, and the effects on water resources will be similar to those that have occurred since the construction and operation of the TRD. No significant cumulative effects to water resources are anticipated resultant from the No-Action Alternative. The selection of the No-Action Alternative may limit the ability of the TRRP to achieve the overall goal of restoration of the Trinity River.

No significant cumulative effects to water resources, specifically increased flood risk to existing structures adjacent to the project ESLs are anticipated due to implementation of any of the Action Alternatives. Since the project is within the floodplain of the Trinity River, it is subject to jurisdiction under the Trinity County Floodplain Management Ordinance. The increased channel capacity provided by the any of the Action Alternatives is designed to reduce flood hazards in conjunction with other channel restoration projects and other flood-hazard reduction projects.

Water Quality

Under the No-Action Alternative the existing bridges will remain in place, and the effects on water quality will be similar to those that have occurred since the construction and operation of the TRD. No significant cumulative effects to water quality are anticipated resultant from the No-Action Alternative. The selection of the No-Action Alternative may limit the ability of the TRRP to achieve the overall goal of restoration of the Trinity River.

No significant cumulative effects to water quality are anticipated to occur due to the implementation of any of the Action Alternatives. Large-scale restoration projects include: implementation of mechanical channel rehabilitation projects, introduction of spawning gravel, and activities at the Rush Creek Delta. Simultaneous implementation of these projects over the course of several years may result in cumulative degradation of water quality within the Trinity River during project construction and implementation. Appropriate implementation of prescribed mitigation measures, coordinated by the TRRP will adequately mitigate for potential water quality impacts associated with turbidity, sedimentation, accidental spills, etc. The cumulative effect of these identified actions within the scope of this analysis is considered less than significant.

No significant cumulative effects on mercury mobilization and methylation are anticipated to occur due to implementation of any of the Action Alternatives. Sources of mercury to the watershed include historic gold mining practices, wet and dry deposition of mercury from the atmosphere and mercury that naturally occurs in rocks and soils. Dissolved mercury species can become methylated through a complex pathway by sulfate reducing bacteria in anoxic environments. Methylmercury is the form of mercury that is of most concern because it most readily accumulates within biota. Methylmercury contamination and exposure can adversely affect the reproductive success and health of native fish and wildlife species. Elevated concentrations of elemental mercury have been found in association with fine sediment samples (less than two millimeters) within the Trinity River Basin. Consequently, implementation of prescribed project mitigation measures for turbidity and sedimentation will adequately control the mobilization and methylation of mercury. The cumulative effect from mercury mobilization is considered less than significant.

In short, the Project as mitigated will benefit, rather than adversely affect, water quality in the long term, as will most of the other related projects described in this chapter. Thus, far from creating adverse impacts that will compound or exacerbate the adverse impacts of other projects, the proposed Project will contribute to long-term environmental benefits.

Fishery Resources

Under the No-Action Alternative the existing bridges will remain in place, and the effects on fishery resources will be similar to those that have occurred since the construction and operation of the TRD. No significant cumulative effects to fishery resources are anticipated resultant from the No-Action Alternative. The selection of the No-Action Alternative may limit the ability of the TRRP to achieve the overall goal of restoration of the Trinity River.

No significant cumulative effects to fisheries resources are anticipated to occur due to the implementation of any Action Alternative. Large-scale restoration projects include implementation of mechanical channel rehabilitation projects, introduction of spawning gravel, and activities at the Rush Creek Delta. Implementation of these projects may occur over the course of several years. Simultaneous implementation of these projects may result in short-term loss of aquatic habitat and temporary displacement of aquatic organisms. Since a primary objective of the TRRP is

restoring the form and function of physical processes and riparian communities within the analysis area, the projects and programs described above have a collective purpose of restoring the fishery resources in the Trinity River. Appropriate implementation of prescribed mitigation measures, coordinated by the TRRP will adequately mitigate for potential impacts associated with removal of vegetation, loss of habitat and impacts on wetlands. The cumulative effect of these identified actions within the scope of this analysis is considered less than significant.

In short, the Project as mitigated will benefit, rather than adversely affect, fishery resources in the long term, as will most of the other related projects described in this chapter. Thus, far from creating adverse impacts that will compound or exacerbate the adverse impacts of other projects, the proposed Project will contribute to long-term environmental benefits.

Vegetation, Wildlife, and Wetlands

Under the No-Action Alternative the existing bridges will remain in place, and the effects on vegetation, wildlife, and wetlands will be similar to those that have occurred since the construction and operation of the TRD. The potential for continued encroachment and conversion of these resources is directly related to the ability to provide a flow regime designed to restore certain habitat components. No significant cumulative effects to these resources are anticipated resultant from the No-Action Alternative. The selection of the No-Action Alternative may limit the ability of the TRRP to achieve the overall goal of restoration of the Trinity River.

No significant cumulative effects to vegetation, wildlife and wetlands are anticipated to occur due to the implementation of any of the Action Alternatives. Large-scale restoration projects include: implementation of mechanical channel rehabilitation projects, introduction of spawning gravel, and activities at the Rush Creek Delta. Simultaneous implementation of these projects may occur over the course of several years. Simultaneous implementation of these projects may result in short-term loss of upland and riparian vegetation, however a primary objective of the TRRP is restoring the form and function of physical processes and riparian communities within the analysis area. Appropriate implementation of prescribed mitigation measures, coordinated by the TRRP will adequately mitigate for potential impacts associated with removal of vegetation, loss of habitat and impacts on wetlands. The cumulative effect of these identified actions within the scope of this analysis is considered less than significant.

In short, the Project as mitigated will benefit, rather than adversely affect, vegetation, wildlife and wetlands in the long term, as will most of the other related projects described in this chapter. Thus, far from creating adverse impacts that will compound or exacerbate the adverse impacts of other projects, the proposed Project will contribute to long-term environmental benefits.

Recreation

Under the No-Action Alternative the existing bridges will remain in place, and the effects on recreation will be similar to those that have occurred since the construction and operation of the TRD. No significant cumulative effects to recreation resources are anticipated resultant from the No-Action Alternative.

No significant cumulative effects to recreational resources are anticipated to occur due to implementation of any of the Action Alternatives. The projects and programs described above are intended to benefit the aquatic environment

and the Trinity River fishery. Benefits to recreational values may be achieved through the implementation of the TRRP over time.

In short, the Project as mitigated will benefit, rather than adversely affect, recreation in the long term, as will most of the other related projects described in this chapter. Thus, far from creating adverse impacts that will compound or exacerbate the adverse impacts of other projects, the proposed Project will contribute to long-term environmental benefits.

Socioeconomics, Population, and Housing

Under the No-Action Alternative the existing bridges will remain in place, and the effects on socioeconomics, population, and housing will be similar to those that have occurred since the construction and operation of the TRD. No significant cumulative effects to recreation resources are anticipated resultant from the No-Action Alternative.

No significant cumulative effects to socioeconomics, population, and housing are anticipated to occur due to implementation of any of the Action Alternatives. The projects and programs described above are intended to benefit the Trinity River fishery, with projected benefits to the residents and communities in the general area. Some socioeconomic benefits are expected through the implementation of the TRRP, including short-term demand for construction labor and potential for increased long-term recreation use as part of meeting the fishery restoration goals of the overall Trinity River Mainstem Fishery Restoration Program.

Tribal Trust

Under the No-Action Alternative the existing bridges will remain in place, and the effects on Tribal Trust resources will be similar to those that have occurred since the construction and operation of the TRD. The status of the Trust resources will be related to the level of restoration achieved by the TRRP. No significant cumulative effects to recreation resources are anticipated resultant from the No-Action Alternative.

No significant cumulative effects to Tribal Trust resources, including water rights, aquatic resources, vegetation and wildlife are anticipated to occur due to implementation of any of the Action Alternatives. The projects and programs described above are intended to benefit the Tribal Trust resources, including the Trinity River fishery, through the implementation of the TRRP over time. Increased flexibility will allow a wide range of instream flow options, but is not dependent on any particular flow

In short, the Project as mitigated will benefit, rather than adversely affect, Tribal Trust resources in the long term, as will most of the other related projects described in this chapter. Thus, far from creating adverse impacts that will compound or exacerbate the adverse impacts of other projects, the proposed Project will contribute to long-term environmental benefits.

Cultural Resources

Under the No-Action Alternative the existing bridges will remain in place, and the effects on cultural resources will be similar to those that have occurred since the construction and operation of the TRD. The proximity of projects considered to the floodplain of the Trinity River reduces the likelihood that cultural resources may be encountered. No significant cumulative effects to cultural resources are anticipated resultant from the No-Action Alternative.

No significant cumulative effects to cultural resources are anticipated to occur due to implementation of any Action Alternative. The Programmatic Agreement described in **Section 3.11** was intended to address the multiple elements of the TRRP. Appropriate implementation of prescribed mitigation measures, in coordination with SHPO and the ACHP will adequately mitigate for potential impacts.

Air Quality

Under the No-Action Alternative the existing bridges will remain in place, and the effects on air quality resources will be similar to those that have occurred since the construction and operation of the TRD. No significant cumulative effects to recreation resources are anticipated resultant from the No-Action Alternative.

No significant cumulative effects to air quality are anticipated to occur due to implementation of any of the Action Alternatives. The NCUAQMD requirements will be addressed by appropriate implementation of prescribed mitigation measures.

Although the projects, as explained in **Section 3.12**, will all generate some temporary air emissions, these emissions are too limited to rise to the level of being "cumulatively considerable." This is so in part because they are temporary, but also because the previously-identified related future projects also tend not to generate any long-term air pollutants. Moreover, construction activities for all of the various projects are not likely to occur at once, and the locations of the activities themselves are generally far enough separated physically to allow for considerable dissipation and dispersion of construction-related pollutants.

Environmental Justice

No significant cumulative effects to Environmental Justice are anticipated to occur due to implementation of the No-Action or any Action Alternative.

Aesthetics

Under the No-Action Alternative the existing bridges will remain in place, and the effects on aesthetic resources will be similar to those that have occurred since the existing bridges were constructed. No significant cumulative effects to aesthetic resources are anticipated resultant from the No-Action Alternative.

No significant cumulative effects to aesthetics are anticipated to occur due to implementation of any Action Alternative. The short-term effects resultant from other restoration and watershed projects in the corridor will be consistent with federal and state requirements for Wild & Scenic Rivers, and the Trinity County General Plan.

In short, the Project as mitigated will benefit, rather than adversely affect, aesthetics in the long term, as will most of the other related projects described in this chapter. Thus, far from creating adverse impacts that will compound or exacerbate the adverse impacts of other projects, the proposed Project will contribute to long-term environmental benefits.

The aesthetic impacts of the projects are not "cumulatively considerable" in large part because their impacts will not compound or exacerbate the aesthetic impacts of the previously-identified related future projects, which are located in areas that are physically separated from the locations of the bridges. Because people will not be able to see all of

these projects, or even many of these projects, at the same time, their visual impacts are individualized and limited to the geographic settings in which they are located.

Hazardous Materials

No significant cumulative effects are anticipated relative to Hazardous Materials through the implementation of any of the aforementioned alternatives, including No-Action.

Noise

Under the No-Action Alternative the existing bridges will remain in place, and the noise effects will be similar to those in the ambient environment. No significant cumulative effects to aesthetic resources are anticipated resultant from the No-Action Alternative.

No significant cumulative effects are anticipated relative to Noise through the implementation of any project alternative. The TRRP will coordinate the implementation of other restoration projects to assure that construction noise is minimized through project scheduling.

The noise impacts of the projects are not "cumulatively considerable" in large part because their impacts will not compound or exacerbate the noise impacts of the previously-identified related future projects, which are located in areas that are physically separated from the locations of the bridges. Because people will not be able to hear noise from more than one of these projects at the same time, the separate noise sources – all of which are temporary, in any event – will not contribute to any cumulative noise impacts. Rather, each project will create very localized noise levels only.

Public Services and Utilities / Energy

No significant cumulative effects are anticipated relative to Public Services and Utilities/Energy through the implementation of any alternative, including the No-Action Alternative.

Transportation / Traffic Circulation

Under the No-Action Alternative the existing bridges will remain in place, and the effects associated with transportation / traffic circulation will be similar to those in the surrounding area. No significant cumulative effects to aesthetic resources are anticipated resultant from the No-Action Alternative.

Although the projects, as explained in **Section 3.18**, will all generate some temporary construction-related traffic, such traffic will be too limited to rise to the level of being "cumulatively considerable." This is so in part because the traffic will be temporary, but also because the previously-identified related future projects also tend not to generate any long-term traffic. Moreover, construction activities for all of the various projects are not likely to occur at once, and the locations of the activities themselves are generally far enough separated physically to make it unlikely that trucks serving one construction location will cross paths with trucks serving a separate location.

No significant cumulative effects are anticipated relative to Transportation / Traffic Circulation through the implementation of any of the Action Alternatives. While Alternative 2 for Salt Flat may result in the conversion of the bridge and access road to County jurisdiction, this conversion is not expected to result in considerable and

significant effects to the County. The TRRP will coordinate with FHWA, Caltrans, and the Trinity County Road Department to assure that appropriate mitigation is prescribed for activities within the general project area.

In short, the Project as mitigated will benefit, rather than adversely affect, Transportation / Traffic Circulation in the long term, as will most of the other related projects described in this chapter. Thus, far from creating adverse impacts that will compound or exacerbate the adverse impacts of other projects, the proposed Project will contribute to long-term environmental benefits.

4.2 Growth-Inducing Impacts

4.2.1 Introduction

This section evaluates the potential for growth that could be induced by implementation of the proposed Project and assesses the level of significance of any expected growth inducement. The project's potential for growth inducement because of the proposed new bridge structures are discussed for each project site and for each Project site alternative.

The relationship between growth and a transportation project can be viewed as generally one of facilitating or accommodating planned growth or inducing unplanned growth (Caltrans 1988). Section 15126 (g) of the state *CEQA Guidelines* provides definitions and guidance in determining the growth-inducing impacts of a Proposed Action.

Specifically, a project is defined to be growth-inducing if it would

- accelerate the rate of planned growth.
- remove obstacles to population growth.
- tax existing community service facilities.
- foster, promote, or sustain economic or population growth.

Growth itself is not assumed beneficial, detrimental, or insignificant to the environment. If a project is determined to be growth inducing, an evaluation is made to determine if significant impacts on the environment would result from that growth.

4.2.2 Growth and Development Potential

Trinity County Growth Policies

The Trinity County General Plan (County 2001) does not describe specific growth policies, however it establishes general goals and policies related to housing and residential land use. Trinity County recognizes that more than one-half of the housing is located in remote, rural areas with a high level of individual self-reliance to meet the infrastructure needs of this segment of the population. The County also understands a strong tradition exists of non-involvement of local government in the area of housing and residential development.

Population

Trinity County population is concentrated in and around the communities of Weaverville, Hayfork and Lewiston, as described in **Section 3.9**. The population in the County increased significantly between 1970 and 1980, from 7,615 to 11,858 (55 percent increase). Although the growth rate continued through 1990, it was substantially less (12 percent

increase to 13,300). The population growth was furthered by the influx of people seeking an alternative lifestyle in the mountains of Northern California, reasonable cost of living, and by retirees.

Vacant Land and Projected Buildout

Approximately 14.6 percent of the land in Trinity County is potentially available for private development. The USFS, the BLM, and various timber production firms manage the balance of the lands within the County. The General Plan identifies 5,517 private parcels as unimproved and potentially available for development and suggests that the actual number may be significantly lower based on requirements for waste disposal, slope and water sources.

Trinity County's Constraints to Development

The General Plan identifies a number of existing or potential factors that could adversely impact future residential and commercial development. A number of state and local permits and fees are currently required for new developments. Building Construction Standards and compliance with the CEQA are also identified as potential constraints to development. The ability to develop the necessary infrastructure (i.e., water, sanitation, energy and access) continue to challenge developers throughout the County.

4.2.3 METHODOLOGY

Each bridge site was evaluated for growth-inducing impacts by examination of parcel sizes and zoning designation(s), as well as the ability of the existing bridge(s) to accommodate additional land divisions. Parcels that are owned by government agencies or zoned Timberland Production Zone were considered unsuitable for additional development or land divisions.

There are no significant growth-inducing impacts as a result of this project. In general, all parcels served by the four bridges have been subdivided to their fullest extent possible under existing zoning designations.

Salt Flat

The Salt Flat Bridge does not meet the requirements of the Trinity County Subdivision Ordinance or the Fire Safe Ordinance to accommodate additional subdivision of parcels. Salt Flat Subdivision is mainly zoned Rural Residential with a minimum parcel size designation of 2.5 to five acres. All of these parcels have been fully sub-divided, and therefore present no potential for development. In addition, many of these parcels fall into Flood Hazard, Scenic Conservation Overlay, or Open Space zoning districts, making further development difficult. The private timberland in the project area, which might be served by the future proposed Salt Flat Bridge, is zoned for Timberland Production. There will be no growth inducing impacts as a result of this project.

Bucktail

As a County bridge and road, Bucktail Bridge already conforms to the requirements of the Trinity County Subdivision Ordinance and the Fire Safe Ordinance. Therefore, the existing bridge is not a constraint to further subdivision of parcels. The area served by Bucktail Bridge is mainly zoned at a Rural Residential, Flood Hazard, and Scenic Overlay designation and a minimum parcel size of one acre. With one exception (Assessor's Parcel Number [APN] 25-120-01, 5 acres), these parcels have generally been fully subdivided, and present no potential for further development. There are several large private timberland holdings and the use of Bucktail Bridge as a primary access route to these lands already exists.

Poker Bar

The Poker Bar Bridges currently conform to the requirements of the Trinity County Subdivision Ordinance and the Fire Safe Ordinance. Therefore, the existing bridge is not a constraint to further subdivision of parcels. The area served by the Poker Bar Bridges is mainly residential with a minimum parcel size designation of five acres. Again, most of these parcels have been fully sub-divided, or portions fall into Flood Hazard and Scenic Conservation zoning districts, therefore presenting no potential for further development. The 390 acres of private timberland in the project area are zoned for Timberland Production. There will be no growth inducing impacts as a result of this project.

Biggers Road

The Biggers Road Bridge does not meet the requirements of the Trinity County Subdivision Ordinance or the Fire Safe Ordinance to accommodate additional subdivision of parcels. The parcels served by Biggers Road Bridge are zoned at a Rural Residential designation and a minimum parcel size of five acres. Located directly adjacent to the river, portions of most of these parcels also fall into Flood Hazard and Scenic Conservation zoning districts. The parcels served by the bridge have been fully sub-divided to their maximum extent, and present no opportunity for further development. There will be no growth inducing impacts as a result of this project.

Proposed Land Uses

In general, all parcels served by the four bridges have been fully subdivided to the extent possible under existing zoning designations; therefore, future rural residential development in the bridge vicinities is unlikely. The zoning designations at all four bridges are largely residential, with a minimum parcel size ranging from one to 10 acres. Located directly adjacent to the river, many of these parcels fall into the Flood Hazard and Scenic Overlay designation zones, making further development of these areas difficult. The residential areas at all four bridges have generally been fully subdivided to the extent possible, and with zoning designations of a minimum of five acres or less, have no potential for further development. Several parcels, zoned for residential use, are currently vacant and the potential for development of a single-family residence on such parcels does exist. There are several large private timberland holdings, and the potential exist for Salt Flat Bridge, Poker Bar Bridges, or Bucktail Bridge to be used as an access route for commercial purposes. The BLM manages most of the public land in the area, consistent with the WSRA and their RMP. In general, the parcels served by the bridges have no further potential for development.

4.3 Significant Irreversible and Irretrievable Commitments of Resources Which Would Result From the Proposed Action

Specific to the requirements of the President's CEQ NEPA Regulations, Section 102 and 40 C.F.R. 1502.16, the environmental document must include a discussion of "any irreversible and irretrievable commitments of resources which would be involved in the Proposed Action should it be implemented." Additionally, Section 15126.2(c) of the *CEQA Guidelines* requires a discussion of significant irreversible environmental changes that would be involved in the Proposed Action should it be implemented:

> *Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvements which provide access to a previous inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result*

from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

The No-Action Alternative would not directly involve the use of resources or cause significant irreversible environmental effects. Implementation of the Proposed Action or other project-build alternatives would result in an irretrievable commitment of energy (i.e., fossil fuels) and other nonrenewable resources used in building materials, including labor, to implement this project at the locations described in **Section 1.7**. Since these resources are not in short supply and the material requirements for this project would be relatively minor compared to the overall demand for such materials, the use of these materials would not have a significant adverse effect on the their continued availability. Additionally, the project purpose and need, as well as the project objectives discussed in **Section 1.6**, Project Description, justify the need for the expenditure of these resources. The proposed project will not change access status at any of the proposed crossings.

4.4 Relationship Between Local Short-Term Uses of the Environment And the Maintenance and Enhancement of Long-Term Productivity

Section 102 of the CEQ NEPA Regulations and CFR 1502.16 requires that a NEPA environmental document include a discussion of "the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity."

The proposed project would not sacrifice the long-term productivity of the project area for short-term uses. The short-term effects on the environment associated with construction of the project are considered minimal compared to the long-term benefit and productivity of the proposed Project in conjunction with other objectives of the TRRP. Construction-related effects to natural resources, including water quality, fisheries, wildlife, vegetation, and wetlands, will be mitigated to a less than significant level. Land use conflicts associated with noise, aesthetics, air quality, and traffic would be short-term in nature in association with the construction phase of the project. This impact is considered less than significant and no mitigation is required.

4.5 Mitigation Monitoring Program for CEQA-Mandated Mitigation

Under NEPA, there are no specific statutes or regulations that explicitly require that all significant project impacts be avoided or mitigated to a less-than-significant level, or that any adopted mitigation measures developed as part of an EA be "monitored" to ensure that they are carried out. Under the CEQA, *Public Resources Code* section 21081.6(a), subdivision (a) requires lead agencies to "adopt a reporting and mitigation monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment."

Throughout this Draft EA/EIR, mitigation measures have been clearly identified and presented in language that will facilitate establishment of a monitoring and reporting program. Any mitigation measures adopted by the County as conditions of project approval will be included in a Mitigation Monitoring and Reporting Program (MMRP) to verify compliance. The Draft MMRP is included as **Appendix D** and the Final MMRP will be included as an appendix to the EA/ Final EIR. The approval of such a program will be part of any action taken by Trinity County with respect to the project. When other regional or state agencies subject to the CEQA approve portions of the Project under their

own jurisdiction or regulatory power, these "responsible agencies" will be required to adopt their own MMRPs (*CEQA Guidelines*, Section 15097, subd. (d)).

The MMRP will be used by the BOR staff, project contractors, participating agencies, and monitoring personnel during implementation of the project. The intent of the MMRP is to ensure the effective implementation and enforcement of adopted mitigation measures and permit conditions. The MMRP will provide for monitoring of construction activities as necessary, on-site identification of environmental problems, and proper reporting to BOR staff.

4.5.1 Responsibilities and Authority

The BOR will have the primary responsibility for the implementation of the MMRP. The BOR will be responsible for the following tasks:

- Ensuring the MMRP is incorporated into the construction bid documents
- Coordination of monitoring activities
- Direction of the preparation and filing or compliance reports
- Maintenance of records concerning the status of all mitigation measures

4.5.2 Monitoring Plan Format

The MMRP includes a summary table that identifies the measures proposed for the Trinity River Bridges Project. These mitigation measures will be excerpted from the EA/EIR for the project. The mitigation-monitoring table will include the following columns:

- **Mitigation Measure:** Presents the mitigation measures identified within the Project EA/EIR for a specific impact, along with the number for each measure as presented in the EA/EIR.
- **Timing:** Identifies when the mitigation measures will need to be implemented.
- **Agency / Department Consultation:** References the specific agency (ies) for which coordination is required to satisfy the requirements of the mitigation measure.
- **Verification:** Spaces to be initialed and dated by the individual designated to verify compliance to a specific mitigation measure.

4.5.3 Noncompliance Complaints

Complaints of noncompliance with adopted mitigation measures shall be directed to the BOR in written form, providing specific information on the alleged violation. The BOR and County shall conduct an investigation and determine the validity of the complaint. If noncompliance with a mitigation measure has occurred, the BOR shall take the appropriate action to remedy the violation. The complainant shall receive written confirmation indicating the results of the investigation or the final action corresponding to the particular noncompliance issue.

4.6 Significant Unavoidable Adverse Impacts

Public Resources Code Section 21100(b)(2)(A) requires that an EIR include a detailed statement that summarizes any significant effects on the environment that cannot be avoided if a Proposed Action is implemented. *CEQA Guidelines*

Section 15126.2(b) states that such impacts include those that can be mitigated but not reduced to a level of insignificance. When there are significant impacts that cannot be fully mitigated to a less than significant or minimized by changing the project design, the implications and the reasons why the project is being proposed need to be described. The environmental analysis conducted for the proposed Project did not identify any significant and unavoidable impacts.

4.7 CEQA Findings of Fact and Statements of Overriding Consideration

Section 15091 of the *CEQA Guidelines* states that "no public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one ore more written findings for each of these significant effects, accompanied by a brief explanation of the rationale for each finding." For this EA/EIR, Trinity County will need to prepare written findings for each significant impact identified in this document before the project can be approved by the Board of Supervisors.

Section 15093 (a) of the *CEQA Guidelines* allows the decision-making body of the lead agency to determine if the benefits of a proposed project outweigh the unavoidable adverse environmental impacts of implementing the project. The lead agency can approve a project with significant unavoidable impacts if it prepares a "Statement of Overriding Considerations" that sets forth the specific reasons for making such a judgment. Since no significant unavoidable impacts were identified for the project, a Statement of Overriding Considerations will not be required.

Trinity County may need to adopt a statement of overriding considerations if it chooses Alternative 2 for the Salt Flat crossing. In addition, depending on whether the County takes formal action before similar action is taken by the BOR, the Board of Supervisors may not know with absolute certainty at the time of its own action whether the BOR will agree to carry out all of the various identified mitigation measures under its sole control. In such an event, the County might take the position that the uncertainties associated with whether the BOR will adopt key mitigation measures may leave certain effects "significant" at the point in time at which the Board acts. If the Board does take such an approach, it might also adopt a statement of overriding considerations stating that, even in the unlikely event that such significant effects go unmitigated by the BOR, the Board would nevertheless conclude that the benefits of the projects outweigh such impacts.

CHAPTER 5

Consultation and Coordination

Chapter 5

Consultation and Coordination

This chapter summarizes the scoping process, consultation, coordination, and applicable laws, policies, and regulations used to develop this EA/EIR.

5.1 Lead and Participating Agencies

The co-lead agencies for this Draft EA/EIR are the BOR and the BLM, as defined by NEPA, and Trinity County, as defined by CEQA. The primary cooperating (NEPA), responsible and trustee (CEQA) agencies include:

- California Department of Fish and Game
- California Regional Water Quality Control Board, North Coast Region
- California State Lands Commission
- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service

5.2 Project Scoping

5.2.1 Summary of Public Scoping Meetings

The following is a summary of the public scoping process that has been completed to date:

- **October 5, 2001** – A Project Kick-Off meeting was held with representatives from the BOR, County and the environmental consulting team, to discuss the project, potential alternatives, the timing requirements for the environmental review process, scope of technical studies, and potential permitting requirements.

- **November 2001** – A series of conference calls and meetings between the BOR staff, County staff, and the environmental consulting team that resulted in modifying the scope of the project from an Environmental Assessment/Initial Studies (EA/IS) to a Environmental Assessment/Environmental Impact Report (EA/EIR) due to expected level of public controversy.

- **January 2002** - All property owners located within and adjacent to the proposed project were contacted via mail requesting access for surveys, studies and investigations. This correspondence also offered the opportunity to discuss the project with the Lead Agencies. As the project has developed, and the environmental study limits are refined, additional contacts have been made with affected property owners.

- **January 25, 2002** – A meeting that included the BOR staff, County staff, BLM staff, and the environmental consulting team to discuss the addition of the BLM as a federal lead agency for the EA/EIR on the project. The inclusion of public lands under BLM jurisdiction, and their management requirements under the WSRA resulted in an MOU between the Lead Agencies.

- **April 16, 2002** – Trinity County, the lead CEQA agency circulated an NOP with the State of California, Governors Office of Planning and Research, State Clearinghouse (SCH) for the Trinity River Bridges

Project (SCH #2002042074). The NOP encouraged full public participation to promote open communication on the issues surrounding the proposed project. All federal, state, and local agencies and other persons or organizations were urged to participate in the scoping process.

In conjunction with the issuance of the NOP, a Public Notice was published on April 24, 2002, in the Trinity Journal, the newspaper that serves Trinity County. The notice included information on the proposed project, as well as the date and location of the public scoping meeting.

- **May 2, 2002** – A Public Agency Scoping Meeting was held at the Trinity County Public Library in Weaverville, California. The purpose of the meeting was to outline the TRRP, identify the types of actions and alternatives that may be evaluated in the Joint NEPA/CEQA document, describe the nature, scope and timing of the environmental process, and to solicit comments on the NOP.

- **May and June, 2002** – Several meetings with individuals and residential groups occurred subsequent to the Public Meeting in Weaverville. These meetings were informational in nature, and provided additional opportunities for informal dialogue between the Lead Agency representatives and interested stakeholders.

- **December 12, 2002** – An evening meeting was held with the Salt Flat Homeowner's Association in the Salt Flat residential community. An overview of the Trinity River Bridges Project was provided, and alternatives for the Salt Flat Bridge construction were discussed. Residents were primarily concerned that the new bridge would remain in private ownership with the use determined by the property owners. Land owners at the location of the new bridge identified in the proposed action expressed concerns over impacts on their property. As a result of the meeting, modifications of the Salt Flat Bridge design were incorporated in the proposed action to maintain the new Salt Flat Bridge, to the extent possible, within the current easement. In addition, another review of the potential to use existing access roads, on a temporary or permanent basis, was undertaken to ensure that all reasonable alternatives to providing access to Salt Flat had been considered.

- **February 13, 2003** – An evening meeting was held with residents that use the Biggers Road Bridge in the Biggers Road subdivision. Topics discussed at the meting included: alternatives for bridge construction; right-of-way issues; and what would be done with the existing railroad flatcars if they were replaced. Schedules were discussed, as well as requirements for temporary restricted access during construction.

- **March 5, 2003** – An evening meeting was held with the Poker Bar Homeowner' Associations (both East and West groups) at the Douglas City Fire Station. Alternatives for bridge construction at Poker Bar were discussed. Residents were primarily concerned that access be maintained to their properties during bridge construction and that the new bridge be constructed as close as possible to the existing alignment. Questions were also raised as to what would be done for other features of the area, such as building structures and the road system, which might be affected by future ROD flows.

5.2.2 COMMENTS ON THE NOTICE OF PREPARATION

On April 16, 2002, Trinity County circulated an NOP to the public, local, state, and federal agencies to solicit comments. The NOP is presented in **Appendix B.** A list of agencies, groups, and individuals providing comments and/or comment letters on the NOP are listed below:

- Averil Carmona
- Bureau of Land Management, Redding Field Office
- California Department of Fish and Game
- California Regional Water Quality Control Board, North Coast Region
- Glenn and Helen Rock

- James Lee Bonk
- John R. Ward
- Nancy Tennyson/Pat O'Connell
- Nor-Rel-Muk Nation
- Raymond Patton
- Renny and Ginger Noll
- Richard Treadwell
- Robert and Donna Crabbe
- Sacramento Municipal Utility District
- Salt Flat Subdivision Property Owners
- Seth Todd Huntington
- Sid Mickelson
- Tom Walz, Sierra Pacific Industries

Additional information on the Scoping process is provided in **Appendix C (Scoping Report)**.

5.2.3 LIST OF AGENCIES AND ORGANIZATIONS CONTACTED

Following is a list of agencies and organizations consulted during the preparation of the environmental document. **Chapter 6**, References, under "Persons Contacted", lists the specific individuals that were contacted.

- California Air Resources Board
- California Department of Fish and Game
- California Department of Transportation
- California Division of Drinking Water
- California Division of Mines and Geology
- California Native American Heritage Commission
- California State Lands Commission
- California State Reclamation Board
- Douglas City Fire District
- Lewiston Community Services District
- Lewiston Unified School District
- National Marine Fisheries Services (Arcata)
- Poker Bar Homeowners Association – East
- Poker Bar Homeowners Association – West
- Salt Flat Homeowners Association
- Trinity County Building and Development Services, Environmental Health Division
- Trinity County General Services Department
- Trinity County Transportation Department
- Trinity County Sheriffs Office
- U.S. Army Corps of Engineers (San Francisco District – Eureka Field Office)
- U.S. Department of Transportation, U.S. Coast Guard
- U.S. Environmental Protection Agency

- U.S. Fish and Wildlife Service (Arcata Field Office)
- U.S. Forest Service (Shasta-Trinity National Forest)
- Weaverville Unified School District

5.3 Agency Consultation and Coordination

Provided below is a list of the related laws, rules, regulations, and federal executive orders that were considered in the preparation of this EA/EIR.

5.3.1 Consistency with Environmental Laws

Provided below is a discussion of how this EA/EIR is consistent with the federal (NEPA) and state (CEQA) statutes.

National Environmental Policy Act

This EA/EIR was prepared pursuant to NEPA and the regulations implementing that statute. NEPA provides a commitment that federal agencies will consider the environmental effects of their actions. This EA/EIR provides the detailed information regarding the alternatives, the effects of these alternatives on the environment, and potential mitigation measures. For more information on NEPA, see Chapter 1, Introduction.

California Environmental Quality Act

This EA/EIR was prepared to comply with CEQA, based on the County's determination that the proposed action constitutes a "project" under CEQA (*CEQA Guidelines* Section 15378[a]). Key among the CEQA provisions is the requirement to identify all significant impacts. Significance thresholds are identified for each issue area to allow the reader to clearly see at what point a given environmental impact was considered significant. CEQA and NEPA are similar in many ways in terms of identification of alternatives, potential mitigation measures, and adverse environmental impacts that cannot be avoided (see **Chapter 1**, Introduction). This joint NEPA/CEQA document is meant to comply with both laws so as to reduce redundancy while providing the necessary documentation for both processes.

5.3.2 Discretionary Approvals

Provided below is a summary of the various discretionary approval processes that have been completed or are still being coordinated concurrent with the NEPA/CEQA environmental review process:

U.S. Army Corps of Engineers

The BOR will be required to obtain a Section 404 permit from the Corps. Discharge of fill material into "waters of the U.S.," including "wetlands," is regulated by the Corps under Section 404 of the federal Clean Water Act (33 USC 1251-1376). Communication with the U.S. Coast Guard confirmed that the Trinity River is not under their jurisdiction as "navigable waters of the U.S.," therefore it is not subject to Section 10 of the federal Rivers and Harbors Act (33 USC 401 et seq.). Projects are permitted under either individual or general (e.g., nationwide) permits. The Corps on a case-by-case basis determines specific applicability of permit type.

The location and boundaries of wetlands and other waters potentially impacted by the proposed project were evaluated based on field surveys, aerial photograph interpretation, and existing published information. Wetlands are defined for regulatory purposes as "areas that are inundated or saturated by surface or groundwater at a frequency and

duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR 328.3; 40 CFR 230.3)." "Other waters" are stream channels, drainages, open water habitats, and other surface water features that do not support positive indicators for the three mandatory technical criteria. The jurisdictional wetland delineation report is provided as **Appendix H**. The delineation was conducted using methods specified in the Corps 1987 guidelines (Environmental Laboratory 1987).

On March 25, 2003, the delineation was verified by the Corps (File No. 26925N). The report is intended for use by the Corps in determining the location and extent of Section 404 jurisdiction. The BOR will continue to coordinate with the Corps to determine the appropriate permit for the project, as well as potential mitigation measures. It is anticipated that the Project can be permitted under Nationwide Permit Number 14 (Linear Transportation Projects).

U.S. Fish and Wildlife Service / National Marine Fisheries Service

Section 7 of the ESA requires federal agencies, in consultation with the Secretary of the Interior, to ensure that their actions do not jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of designated critical habitat for these species. The BOR and the BLM, as the federal lead agencies for this project, are required to consult with NMFS concerning project effects to federally-threatened, SONCC ESU coho salmon and their designated critical habitat. A draft BA/EFHA (**Appendix F**) has been prepared for this project and formal consultation will be completed by the BOR project manager, as federal lead agency, prior to the start of project construction. It is expected that the NMFS will respond with a BO that describes the effects of the proposed project on listed SONCC ESU coho salmon. The BO is anticipated to include discretionary and non-discretionary measures to reduce project impacts to listed fishes and EFH, as well as an Incidental Take Permit that will allow for a limited "take" of SONCC ESU coho salmon. RPMs prescribed by NMFS during consultation and scoping of the project are reflected in the mitigation section of this Draft EA/EIR; however, details of final RPMs from the project BO will only be available when the BO is completed prior to project implementation.

Informal consultation with the USFWS concerning effects to listed terrestrial species such as the northern spotted owl was conducted by the BOR. Based on this informal consultation, the USFWS determined that a biological assessment was not required since the proposed project would not adversely affect northern spotted owl (**Appendix N**).

National Marine Fisheries Service – Magnuson-Stevens Fishery Conservation and Management Act

The MSA, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), established procedures designed to identify, conserve, and enhance EFH for those species regulated under a federal FMP. "EFH" refers to those waters and substrates necessary for the spawning, breeding, feeding, or growth to maturity. "Waters" include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate; "substrate" includes sediment, hard bottom, structures underlying the waters, and associated biological communities; "necessary" means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and spawning, breeding, feeding, or growth to maturity covers a species' full life cycle. "Adverse effect" means any impact that reduces the quality and/or quantity of EFH, and may include direct, indirect, site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.

The MSA requires federal agencies to consult with NFMS on all actions, or proposed actions, authorized, funded, or undertaken by the agency, that may adversely affect EFH (MSA §305[b][2]). A component of this consultation process is the preparation and submittal of an EFHA. The length of the EFHA will vary based on project complexity

and magnitude of potential impacts to EFH, but all EFHAs must include the following information: 1) a description of the proposed action; 2) an analysis of the effects, including cumulative effects, of the proposed action on EFH, the managed species, and associated species, such as major prey species, including affected life history stages; 3) the federal agency's views regarding the effects of the proposed action on EFH; and 4) proposed mitigation, if applicable. In instances where MSA and ESA issues overlap, NMFS encourages an integrated approach for consultation.

The EFH mandate applies to all species managed under a federal FMP. For the Pacific Coast (excluding Alaska), there are three FMPs covering groundfish coastal pelagic species, and Pacific salmon. For the proposed Project, the BOR and the BLM, as federal lead agencies, will need to consider the impact of the proposed action on EFH for both coho and chinook salmon in the Trinity River, pursuant to the Pacific Coast Salmon FMP. A joint BA/EFHA has been prepared for this project and submitted to NMFS for review and approval (**Appendix F**).

California Department of Fish and Game

Streambed Alteration Agreement

Any entity subject to California law proposing an activity that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the CDFG, must receive a discretionary Stream Alteration Agreement permit from the CDFG (Region 1 for the Project). Generally, this requirement applies to any work undertaken within the 100-year floodplain of a stream or river containing fish or wildlife resources. Construction cannot be initiated at the project site until a Streambed Alteration Agreement has been issued to the applicant by the CDFG. Trinity County, as the state lead agency, will submit an application to CDFG for a streambed alteration agreement the year that construction is expected to commence. The contractor will be required to sign the Section 1601 streambed alteration agreement.

California Endangered Species Act

State-listed species are fully protected under the mandates of the CESA. On August 30, 2002, the Commission determined that coho salmon in California warranted protection as a threatened species north of Punta Gorda (including the Trinity River) and as an endangered species south of Punta Gorda under the CESA. The Commission has directed the CDFG to develop a coho salmon recovery strategy plan within one year. Once the coho recovery plan is completed, coho salmon will be listed under CESA. Prior to this listing, incidental take of coho is authorized for any project carried out in compliance with Fish and Game Code Section 1601 or 1603 for which a lake or streambed alteration agreement has been entered into with the CDFG.

California State Lands Commission

Since the State of California maintains ownership of the bed of the Trinity River, placement of structures in the river may require a public agency lease issued by the SLC. The SLC did review the NOP for the project in April 2002 during the scoping process. Since the state interest has not been defined (jurisdiction has not been determined for the project area), a lease application from the SLC project will not be required (Bill Young, personal communication, 2002). The SLC did suggest that a retroactive lease application may be required if, in the future, jurisdiction is determined for the area in question. In short, no further action is necessary with the SLC for the proposed Project.

California Regional Water Quality Control Board

The RWQCB requires that a project proponent obtain a Section 401 (Clean Water Act) water quality certification or waiver for Section 404 permits granted by the Corps. Since the project would have potential to impact water quality

within the Trinity River, the NCRWQCB is likely to impose water quality limitations on the project either through a waste discharge requirement or a conditional waiver.

The BOR will prepare and submit to the NCRWQCB a request for water quality certification or waste discharge requirements upon adoption of the environmental document under CEQA. The request will be submitted to the NCRWQCB when the pre-construction notification is sent to the Corps. A likely condition of the NCRWQCB is the preparation of an erosion and sedimentation control plan and spill prevention and containment plan.

California Reclamation Board

The Trinity River Basin does not have any flood control project levees and floodways within the watershed. As such, the California Reclamation Board does not have jurisdictional authority over the Trinity River. No encroachment permit will be required for this project.

Trinity County Ordinances

Trinity County's Fire Safe Ordinance authorizes the County to approve road construction or reconstruction pursuant to Article 1. Article 2 defines the requirements for Emergency Access, including road width, roadway turnarounds and roadway structures. The requirements for emergency access have been incorporated by the BOR into the overall design of the project.

The Trinity County Floodplain Management Ordinance, found in section 29.4 of the County Zoning Ordinance, requires a Floodplain Development Permit for projects that alter the Trinity River floodplain on private lands within the jurisdiction of Trinity County. The principal requirement of the permit is certification by a registered professional engineer or architect that construction or replacement of bridges, roadways, and bank slope protection devices will not adversely affect the flood-carrying capacity of any altered portion of the watercourse, and will not cumulatively raise the 100-year floodplain elevations by more than one foot in the project area. The Ordinance also requires notification of adjacent communities, the CDFG, the Corps, the NCRWQCB, and the DWR prior to any alteration or relocation of a watercourse, and the submission of evidence of such notification to the Federal Insurance Administration and the FEMA.

The Trinity County Decomposed Granite Grading Ordinance requires a grading permit from the Trinity County Transportation Department prior to construction of new roads or excavation in areas with decomposed granite soils, which includes the Shasta Batholith. This ordinance applies only to private lands under the jurisdiction of Trinity County. It does not apply to federally managed lands. For the proposed Project, the ordinance will only apply to the Salt Flat and Bucktail sites, as the Biggers Road and Poker Bar sites do not have decomposed granite soils.

5.3.3 Consistency Determinations

Provided below is a summary of governing laws for which a consistency determination will need to be made.

Federal Emergency Management Agency

Trinity County implements FEMA's NFIP through its Floodplain Management Ordinance contained in Section 29.4 of the Zoning Ordinance (Ordinance No. 315). County participation in the NFIP is voluntary, but if the County elected to not participate, landowners in Trinity County would be ineligible for flood insurance, and the County would be ineligible for disaster relief payments when flood or other damages occur to facilities such as County roads.

Under the Floodplain Management Ordinance, projects such as bridges are not to increase the 100-year flood elevations, otherwise known as the BFE by more than 12 inches. The general concept of replacing existing bridges with higher and longer structures with fewer supports within the floodplain would be expected to have a positive effect on the BFE. At the level of engineering analysis associated with this EA/EIR, all the bridge alternatives that include removal and replacement of the existing structures with new bridges would result in lowering or having no detrimental effects on the BFE in the project areas. Prior to issuance of a Floodplain Development Permit for a bridge, the County must receive engineering data to certify that the project will not negatively affect the BFE by more than 12 inches.

Section 106 of the National Historic Preservation Act

Section 106 of the NHPA requires federal agencies to evaluate the effects of federal undertakings on historical, archaeological, and cultural resources. Agencies are required, within the vicinity of proposed projects, to identify historical or archeological properties, including properties on the NRHP, and those that the agency and the SHPO agree are eligible for listing in the national register. If the federal project is determined to have an adverse effect on National Register properties or those eligible for listing in the National Register, the agency is required to consult with the SHPO and the ACHP to develop alternatives or mitigation measures to allow the project to proceed.

An archeological survey report and historic property survey report have been prepared for the project. These reports document the findings of the cultural resources reconnaissance, which was conducted according to protocol outlined in the *Programmatic Agreement among the U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, U.S. Bureau of Land Management, Hoopa Valley Tribe, California State Historic Preservation Office, and the Advisory Council on Historic Preservation Regarding Implementation of the Trinity River Mainstem Fishery Restoration* (USFWS et. al. 2002), included as **Appendix O**. The conclusion of the bridges evaluation was that the structures do not meet the criteria of eligibility for inclusion on the NRHP. No cultural resources were identified within the project APE.

Federal Wild and Scenic Rivers Act

The federal WSRA designates qualifying free-flowing river segments as wild, scenic, or recreational. The WSRA establishes requirements applicable to water resource projects affecting wild, scenic, or recreational rivers within the National Wild and Scenic Rivers System, as well as rivers designated on the National Rivers Inventory. Under the WSRA, a federal agency may not assist the construction of a water resources project that would have a direct and adverse effect on the free-flowing, scenic, and natural values of a wild or scenic river. If the project would affect the free-flowing characteristics of a designated river or unreasonably diminish the scenic, recreational, and fish and wildlife values present in the area, such activities should be under-taken in a manner that would minimize adverse impacts, and should be developed in consultation with the administering agency. The Trinity River is designated for its outstandingly remarkable anadromous fishery values and has been classified as a Recreational River from Cedar Flat to Lewiston Dam. **Appendix G** provides the information necessary for the BLM to comply with their Resource Management Plan.

State Wild and Scenic Rivers Act

Under the California WSRA, the segment of the Trinity River associated with the Project is designated as "scenic" and "recreational." This classification was designated in 1980, a year prior to the federal designation. The *Public Resources Code* (5093.53[b]) defines "scenic rivers" as being "those rivers or segments of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads." "Recreational rivers" are defined in the *Public Resources Code* (5093.53[c]) as being

"those rivers or segments of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment of division in the past. There are no permits required specifically under the state WSRA. However, in conjunction the federal WSRA, other permits or agreements may be required to comply with other laws.

While there are no separate reporting requirements to address wild and scenic rivers, the environmental document shall discuss the issue, summarize coordination among participating agencies, evaluate impacts to qualities that support the river's designation, and propose suitable mitigation measures as warranted. These may include the Clean Water Act Section 404 Permit, 401 Certification, NPDES Permit, Fish and Game Code Section 1601 Streambed Alteration Agreement, or ESA Section 7 Consultation for endangered species that would be affected. Specifically with regards to 1601/1603 Streambed Alteration Agreements on Wild ad Scenic Rivers, projects are reviewed by the State Resources Agency for consistency with the state WSRA and additional conditions may be placed on the Agreement for consistency with the WSRA. **Appendix G** provides the information necessary for the Resources Agency to make a determination on the project's compliance with the State WSRA.

5.3.4 FEDERAL EXECUTIVE ORDERS

Provided below is a discussion of the federal executive orders and implementing policies that the Project would need to comply.

Executive Order 11990 for Wetlands

Executive Order 11990 requires federal agencies to prepare wetland assessments for federally funded projects located within or affecting wetlands. Agencies must avoid undertaking new construction located in wetlands unless no practicable alternative is available and the proposed action includes all practicable measures to minimize effects to wetlands. The Project as described in **Chapter 2** will affect a small area of riparian wetland and riverine habitat that qualify as jurisdictional waters. The loss of wetland habitat can be avoided through avoidance, habitat restoration within area temporarily disturbed during construction, and habitat creation for riparian wetland permanently lost. The BOR will continue to coordinate with the Corps regarding the Section 404 permit and potential mitigation measures.

Executive Order 11988 for Floodplain Management

Executive Order 11988 requires federal agencies to prepare floodplain assessments for proposals located within or affecting floodplains. If an agency proposes to conduct an action within a floodplain, it must consider alternatives to avoid adverse effects and incompatible development of the floodplain. If the only practicable alternative involves siting in a floodplain, the agency must minimize potential harm to or within the floodplain and explain why the action is proposed in the floodplain. As discussed in **Section 3.4**, Water Resources, the Hydraulic, Scour and Riprap Sizing Analysis (**Appendix J**) for the project concludes that the proposed Project would not constitute a significant encroachment on the base floodplain.

Executive Order 12898 for Environmental Justice

Executive Order 12898 requires federal agencies to identify and address disproportionately high and adverse human health and environmental effects of federal programs, policies, and activities on minority and low-income populations. Federal agencies are required to provide opportunities for input in the NEPA process by affected communities and to evaluate significant and adverse effects of proposed federal actions on minority and low-income communities during the preparation of NEPA documents. The NEPA scoping process can be used to solicit

information on the concerns of minority and low-income populations. If a proposed federal action will not result in significant adverse impacts on minority and low-income populations, the environmental document must describe how Executive Order 12898 was addressed during the NEPA process. For the proposed Project, the BOR will circulate a public notice in the local newspaper soliciting input from the public regarding potential adverse effects of the project on minority and low-income populations as part of the overall 45-day comment period for the Draft EA/EIR. The Draft EA/EIR contains a specific section on environmental justice (**Section 3.13**) that details federal responsibilities. The preliminary findings indicate the Project will not have an adverse effect on minority and low-income populations.

Executive Order 13007 for Indian Sacred Sites on Federal Land

Executive Order 13007 provides that each federal agency with statutory or administrative responsibility for management of federal lands shall, to the extent practicable and as permitted by law, accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners, and shall avoid adversely affecting the physical integrity of such sacred sites. The potential for any such sites occurring within the Project study area is discussed in **Section 3.11**, Cultural Resources. The preliminary findings indicate the Project will not have an adverse effect on Indian Sacred Sites on federal land.

Executive Order 12373 for State, Area-wide, and Local Plan and Program Consistency

Agencies must consider the consistency of a proposed action with approved state and local plans and laws. In accordance with Executive Order 12372, this Draft EA/EIR has been prepared with input from the cooperating, responsible, and trustee agencies. Additionally, those policies within Trinity County that affect or would be affected by any of the alternatives are discussed. During the review period, the Draft EA/EIR will be circulated to the appropriate state and local entities to satisfy review and consultation requirements.

Indian Trust Assets

The United States Government's trust responsibility for Indian resources requires federal agencies to take measures to protect and maintain trust resources. These responsibilities include taking reasonable actions to preserve and restore tribal resources. Indian Trust Assets (ITAs) are legal interests in property and rights held in trust by the United States for Indian tribes or individuals. Indian reservations, rancherias, and allotments are common ITAs. This Draft EA/EIR contains a specific section on tribal trust (**Section 3.10**) that details federal responsibilities with regard to the Hoopa Valley and Yurok tribal resources. The preliminary findings indicate the Project will not have an adverse effect on ITAs.

CHAPTER 6

References

Chapter 6

References

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Holthaus, Jerry	Trinity County Transportation Department, Senior Traffic Aide
Kelly, Mike	NMFS, Arcata Office, Fisheries Biologist
Kuntz, Bill	BLM, Redding
McLaughlin, Pat	CDFG, Biologist
MacKenzie, Sharon	Golden Age Center, Director
Mayeda, Diane	Pacific Gas and Electric Company, Redding
Miller, Glen	BLM (Redding), Environmental Coordinator
Miller, Richard	TRRP, Project Engineer
Morales, Larry	City of Redding, Solid Waste Management
Osvold-Doppelhauer, Elise	Trinity County Public Health Nursing Director
Peters, Sue	Shasta County Sheriff's Office, Personnel
Peterson, Daryl	TRRP, Monitoring and Analysis Group Leader
Quinn, T.	Shasta-Trinity National Forest – Trinity Management Unit
Rectenwald, Harry	CDFG (Redding Office), Aquatic Habitat Conservation
Sinnen, Wade	CDFG (Arcata Office), Associate Fisheries Biologist
Solbos, Ed	TRRP, Implementation Group Leader
Smith, Dave	CDFG (Redding Office)
Stokely, T.	Trinity County Planning Department, Natural Resources Division

Sullivan, Robert	TRRP, Wildlife Biologist
Torzynski, Bob	North Coast Unified Air Quality Management District Planner (Eureka Office)
Tucker, Mike	NMFS (Sacramento Office)
Webb, Bruce	California Department of Fish and Game (Redding Office), Environmental Scientist--Streambed Alteration Agreements
Whitney, Daniel	Caltrans District 2 (Redding)
Williams, Bob	California Department of Fish & Game (Redding Office), Environmental Scientist--CESA
Wineberg, D.	Bureau of Land Management
Yoshioka, Glenn	TRRP, Fishery Biologist
Young, Bill	State Land Commission

CHAPTER 7

List of Acronyms and Abbreviations

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List of Acronyms and Abbreviations

°C	Degrees Celsius
°F	Degrees Fahrenheit
AASHTO	American Association of State Highway and Transportation Officials
ACHP	Advisory Council on Historic Preservation
ADT	average daily traffic
af	acre-feet
afa	acre feet annually
AM	morning
AN	areas of shallow flooding
AO	areas of shallow flooding
APE	Area of Potential Effect
APN	Assessor's Parcel Number
BA	Biological Assessment
BA/EFHA	Biological Assessment/Essential Fish Habitat Assessment
BEA	U.S. Bureau of Economic Analysis
BFE	Base Flood Elevation
BIA	U.S. Bureau of Indian Affairs
BLM	U.S. Bureau of Land Management
BOR	U.S. Bureau of Reclamation
CA	California
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CD	Community Development
CDF	California Department of Forestry and Fire Protection
CDFG	California Department of Fish and Game
CED	Center for Economic Development
CELSOC	Consulting Engineers and Land Surveyors of California
Census	U.S. Bureau of the Census
CEQ	President's Council on Environmental Quality
CEQA	California Environmental Quality Act

CESA	California Endangered Species Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
CHP	California Highway Patrol
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
Commission	California State Fish and Game Commission
Corps	U.S. Army Corps of Engineers
County	Trinity County
CRA	California Resources Agency
CRHR	California Register of Historic Resources
CUPA	Certified Unified Program Agency
CVP	Central Valley Project
CVPIA	Central Valley Project Improvement Act
d_{50}	mean diameter of channel bed material
dB	logarithmic decibel
dBA	"A-weighted" decibel scale
DCCSD	Douglas City Community Services District
DOI	U.S. Department of the Interior
DOT	U.S. Department of Transportation
DTSC	Department of Toxic Substances Control
DWR	California Department of Water Resources
EA	Environmental Assessment
EA/EIR	Environmental Assessment/Environmental Impact Report
EDD	California Employment Development Department
EFH	Essential Fish Habitat
EFHA	Essential Fish Habitat Assessment
e.g.	for example
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
ESL	Environmental Study Limit
ESU	Evolutionary Significant Unit
et al	And others
et seq	The following ones
Fed Ex	Federal Express
FEIS/EIR	Final Environmental Impact Statement/Environmental Impact Report

FEMA	Federal Emergency Management Agency
FH	Flood Hazard
FHO	Flood Hazard Overlay
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Maps
FMP	Fishery Management Plan
FONSI	Finding of No Significant Impact
ft	feet
ft^2	square feet
ft^3/s	cubic feet per second
GIS	Geographic Information Systems
HAP	Hazardous Air Pollutant
HEC-RAS	Hydraulic Engineering Center River Analysis System
HS20-44	AASHTO design vehicle
HS20	AAHSTO standard for design live loading
HVT	Hoopa Valley Tribe
i.e.	that is
IS	Initial Study
ISMS	Interagency Species Management System
ITA	Indian Trust Asset
KFMC	Klamath Fishery Management Council
KMP	Klamath Mountains Province
KOP	key observation point
L_{dn}	day-night average sound level
L_{eq}	equivalent noise levels
lbs	pounds
LC	Bridge low chord
LCSD	Lewiston Community Services District
LWD	Large Woody Debris
m	meter
MBTA	Migratory Bird Treaty Act
maf	million acre-feet
MCE	Maximum Credible Earthquake
MCL	maximum contaminant level
MDB&M	Mount Diablo Base and Meridian
ml	milliliters
MMRP	Mitigation Monitoring and Reporting Program
MOU	Memorandum of Understanding
mph	Miles per hour

MSA	Magnuson-Stevens Fishery Conservation and Management Act
msl	mean sea level
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCAB	North Coast Air Basin
NCHRP	National Cooperative Highway Research Program
NCRWQCB	North Coast Regional Water Quality Control Board
NCUAQMD	North Coast Unified Air Quality Management District
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOI	Notice of Intent
NO_X	Nitrogen Oxide gases
NO_2	Nitrogen Dioxide
NOD	Notice of Determination
NOP	Notice of Preparation
NPDES	National Pollution Discharge Elimination System
NR	Natural Resource
NRCS	National Resource Conservation Service
NRHP	National Register of Historic Places
NSR	North State Resources, Inc.
O_3	Ozone
OES	Office of Emergency Services
ORV	Outstanding Remarkable Values
OSHA	Occupational Safety and Health Administration
PA	Programmatic Agreement
Pb	Lead
PCB	polychlorinated biphenyl
PFMC	Pacific Fishery Management Council
PM	night
$PM_{2.5}$	fine particulate matter (particulate matter less than 2.5 microns in aerodynamic diameter)
PM_{10}	particulate matter less than 10 microns in aerodynamic diameter
ppm	parts per million
Project	Trinity River Bridges Project
Q	flow rate (typically expressed in cfs)
Q_{50}	50-year flood flow
Q_{100}	base or 100-year flood flow
Q_{max}	Maximum unobstructed flow
Q_{MCR}	Maximum Controlled-Flow Release
Q_{1997}	Estimated flow during 1/1/97

RCRA	Resource Conservation and Recovery Act
REIS	Regional Economic Information System
RM	River Mile
RMP	Resource Management Plan
ROD	Record of Decision
ROW	right-of-way
RPM	reasonable and prudent measures
RR	Rural Residential
RVD	Recreational Visitor Day
RWQCB	California Regional Water Quality Control Board
SCH	State Clearinghouse
SEIS	Supplemental Environmental Impact Statement
SHPO	California State Historic Preservation Officer
SLC	California State Lands Commission
SO_2	sulfur dioxide
SMARA	Surface Mining and Reclamation Act
SONCC	Southern Oregon / Northern California Coasts
SRA	shaded riverine aquatic
STAR	Southern Trinity Area Rescue
STNF	Shasta-Trinity National Forest
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TCLP	Toxicity Characteristic Leaching Procedure
TCRCD	Trinity County Resource Conservation District
TCSD	Trinity County Sheriff's Department
TL-2	Test Level 2 full-scale crash-test criteria
TMDL	Total Maximum Daily Load
TOD	Top of Deck elevation
TRD	Trinity River Diversion
TRFE	Trinity River Flow Evaluation
TRFES	Trinity River Flow Evaluation Study
TRPH	total recoverable petroleum hydrocarbons
TRRP	Trinity River Restoration Program
TRSSH	Trinity River Salmon and Steelhead Hatchery
USC	United States Code
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UPS	United Parcel Service
V	Village

VAU	visual assessment unit
VE	Value Engineering
VRM	Visual Resource Management
WA	Watershed Analysis
WCB	California Wildlife Conservation Board
WDRs	Waste Discharge Requirements
WSRA	Wild and Scenic Rivers Act

CHAPTER 8

List of Preparers

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BUREAU OF RECLAMATION – TRINITY RIVER RESTORATION GROUP OFFICE

Doug Schleusner	Executive Director
Ed Solbus, P.E.	Implementation Branch Chief
F.Brandt Gutermuth	Environmental Specialist
Rich Miller	Civil Engineer
Noelyn Habana	Civil Engineering Technician
Daryl Peterson	Monitoring and Analysis Branch Chief
Robert Sullivan, PhD.	Wildlife Biologist
Glenn Yoshioka	Fisheries Biologist

SACRAMENTO OFFICE:

Jim West	Regional Archaeologist

DENVER OFFICE:

Jesus Romero, P.E.	Civil Engineer
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BUREAU OF LAND MANAGEMENT

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Glen Miller	Environmental Coordinator
William Kuntz	Recreation Planner

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Jim Moose (Remy, Thomas, and Moose)	County Legal Counsel

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Shelia Covarrubias	Environmental Specialist
Glenn Mayfield	Word Processing/Graphics Specialist
Robin Jordon	Word Processing

CHAPTER 9

Distribution List

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Distribution List

9.1 Federal Agencies

- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- National Marine Fisheries Service
- U.S. Forest Service
- Natural Resource Conservation Service

9.2 State Agencies

- California Department of Fish and Game
- California Regional Water Quality Control Board, North Coast Region
- California State Lands Commission
- California Department of Water Resources
- State Lands Commission

9.3 Local Agencies

- Humboldt County Public Works
- Trinity County Public Library

9.4 Other Agencies, Organizations, and Individuals

- Redding Electric Utility
- Sierra Pacific Industries
- Nor-Rel-Muk Nation
- KMT&G
- Trinity Associates

- Sacramento Municipal Utility District
- Sue Ellen McCann
- Seth Todd Huntington
- Glenn and Helen Rock
- Renny and Ginger Noll
- Averil Carmona
- Raymond Patton
- Sid Mickelson
- Marlene J. Iverson
- Ted Hyer
- Robert Borie
- Steven D. Ziegler
- Paul Olmstead
- Charlie Chamberlain
- Jay and Kristi Bevard
- James Evans
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- John R. Ward
- Patrick O'Connell
- David Steinhauser
- Tim Colvin
- James Lee Bonk
- Robert and Donna Crabbe
- Arnold Whitridge
- Glenn and Helen Rock
- Stephen F. and Milo Richards

- Don Tuttle
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